

APPENDIX A

2004-2005 - 30301

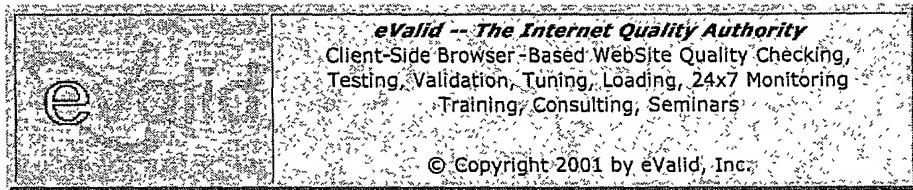
USER'S MANUAL



三國志

eValid Version 3.1

**Client-Side Browser-Based Web Site Quality Checking,
Testing, Validation, Tuning, Loading, and 24x7 Monitoring.
Plus Training, Consulting, and Seminars.**



Frequently Asked Questions (FAQs)

eValid is an object oriented capture replay system that aims to assist in quality testing of WebSites. This Frequently Asked Questions (FAQ) addresses basic questions about eValid and how and when it should be applied. Here are the general discussion areas:

General Questions

Versions, Cost, Licensing, Size, Availability
Performance Measurement
Object Oriented WebSite Testing
Validation Features
Testing Wizards
Limitations and Restrictions
Pricing & Order Form

Questions about eValid can be addressed to info@soft.com.

General Questions [Top of Page]

What is eValid? eValid is an object-oriented capture replay system for WebSite testing and analysis that is built into a standard web browser. eValid runs on Windows NT/2000.

Why do I need eValid? If you're content to have a slow, buggy WebSite, then you don't need eValid. Or, if you're involved in E-commerce and are not concerned about the basic functional quality of your WebSite, then you don't need eValid. But, if you want to have confidence that others viewing your WebSite get the information you *want* them to get, and/or you want to have assurance of the quality of your E-commerce operations from your WebSite, then you will need to test your WebSite very carefully. eValid makes that process very easy. Please read on.

What is unique about a Test Enabled Web Browser? SR's unique patent-pending Test Enabled Web Browser was created because it is the only way to provide **Pure Object Mode operation** for testing WebSites. Other capture/replay techniques -- including our own CAPBAK/X for Xwindows and CAPBAK/MSW for Windows 98/NT -- cannot capture WebSites in Object Mode because they only see the operating system's objects. Direct access to the WebSite is therefore masked behind the browser layer. However, testing from the browser itself provides the pure object mode interaction required for efficient and valid testing of WebSites. Nonetheless, these capture/replay products can operate with eValid. A test enabled web browser will focus directly on the abstract objects within your WebSite. The end results are simpler scripts, more reliable playbacks, and easy modification of scripts. With eValid, in-depth test operations are much easier to create than with other capture/replay recording techniques.

What kind of recording can eValid make? You can record anything and everything you do to analyze a WebSite with eValid. The recordings made are expressed as simple commands -- one command for each action, and one file of commands (called a *script*) for each recording session. You can edit these commands if you want to delete actions or change parameters.

How serious are the errors that eValid can catch? Do I have to worry about them? WebSite defects can be **very serious** indeed. Consider a FORM that you are using to handle a financial transaction; if there is a non-working button or an inoperative field, you could be losing a lot of revenue. We tend to think these kinds of defects are serious, and eValid offers a tremendous advantage by making detection of these serious problems virtually 100% automatic.

Versions, Cost, Licensing, Size, Availability [Top of Page]

What is the current version of eValid? The current release of eValid is Ver. 3.0. Please see the

Release Notes.

What platforms are supported by eValid? eValid Ver. 3.0 is currently supported on Windows NT/2000. eValid may be supported on a wider range of platforms in the future. Please watch our WebSite for eValid product announcements.

Does eValid have to run off the Web or can it run locally? eValid can run locally, e.g. on your Intranet or even on a local copy of your WebSite, or it can run over the Internet.

Can eValid handle any size WebSite? Besides disk space needed for the scripts and log files, there is no size limitation on any part of eValid test activity.

How much execution space does eValid take? eValid's execution footprint is ~570 KBytes. During execution the actual memory usage is ~8.6 MBytes (IE 5.0 takes ~8.7 MBytes) on Windows 2000, and ~7.9 MBytes (IE 5.0 takes ~9.2 MBytes) on Windows NT 4.0. Actual eValid memory usage may vary depending on machine load and other factors.

Can eValid handle a site with frames? Yes, eValid has no problem handling WebSites with frames.

Will eValid handle JavaScript, VB Script, Java Applets and ActiveX Controls? Yes, JavaScript, VB Script and Java Applets, and ActiveX controls are fully supported. There is special support for recording Java Applets.

Can eValid handle cookies? Yes. In fact, one of eValid's features is "maintaining state" with cookies and session ID's.

Can eValid handle testing sites with proxy servers? Yes. Because eValid tests WebSites entirely from the user's perspective (i.e. via the client), proxy servers present no special barrier to correct eValid operation.

What about handling DHTML and HTML 4.0? Yes. In fact, the ability to correctly parse HTML 4.0 is one of the strong points of eValid.

Can eValid handle 2-byte character set sites? Yes, eValid is capable of handling 2-byte character set sites.

What kind of technical support is available for eValid? SR's standard telephone, Email and Web-based technical support is available. SR also offers consulting as well as standard and customized training courses.

How does eValid integrate with other TestWorks products? Can I use it with SMARTS? eValid can be used with SMARTS (for Windows or UNIX) or with CAPBAK/MSW or CAPBAK/X. Like all TestWorks products, the eValid test engine operates smoothly with other TestWorks products.

How do I obtain a copy of eValid? You can download a limited function DEMO copy of eValid at any time and evaluate it for 7 - 14 days at no cost. Additionally you can request an EVAL copy of eValid and will receive an EVAL license by Email. You can begin this process on the eValid Download Page.

How much does it cost? Pricing of eValid is very competitive. For more information, please visit the Pricing & Order Form. Contact sales@soft.com for complete details or to ask about multiple-product discounts.

Performance Measurement [Top of Page]

Can eValid be used to measure performance? Yes. eValid scripts can be edited to report the start time, the end time, and the elapsed time of each playback or any parts of a playback. Time resolution is measured in 1 msec (0.001 sec) intervals. Timing data is reported in an ASCII Log File that can be used for direct analysis of the raw timing data. Scripts that you have recorded and/or edited can be run multiple times serially in the foreground or, with multiple copies of eValid launched from the batch-mode command-line interface, in the background.

How does eValid compare with products that are based on use of the HTTP

protocol? Because eValid is a true browser, when it downloads a page it downloads **all parts of the page** in addition to the base URL -- everything that's needed to completely render the page. This means that timings you make with eValid always reflect the total client-side time it takes to download a page, all of its referenced components, and to completely render the page. Other systems that use **HTTP** protocol require you to list every page element separately to obtain this kind of detail, and even then do not include the page rendering time.

What about synchronization? Can eValid wait until a page download is complete?

Yes. eValid has *automatic output synchronization* built in to make test suite executions extremely reliable. The normal mode of replay waits until each page is fully downloaded before the playback continues. This feature assures synchronization during playback, and also assures that the timings you get are accurate and realistic.

Can I run multiple copies of eValid on one machine? Yes. You can launch multiple copies of eValid on one machine and start each one playing a different script. Also, if you are running eValid with SMARTS [which we recommend that you do] you can launch SMARTS multiple times. The only limit is the amount of RAM you have. Our experiments on a small PC have had up to 100 copies of eValid running in parallel; sometimes more.

How do I retrieve the timing data? Timing information, calculated to the nearest 1 msec, is shown directly on the screen in the Timing Log, and also is written to the underlying timer output file. Performance timing data is only generated if you have edited the script to include it. Recordings that you make to generate scripts do not have timer data included. You can edit the script to reset the timer whenever you want, and you can edit the script to output partial times whenever you want them to appear in the playback session.

Can I see data graphically? Yes. There are several built-in charts that show the results of the current test or of a series of tests.

What about the cache? Doesn't it get in the way of reliable timing data? eValid is implemented so that the caching functions can be turned off entirely, or so that you can start each playback with an empty cache (to simulate the way the browser avoids reloading when it can). To assure accuracy in the data, LoadTest executions always run with no cache.

Object Oriented WebSite Testing [[Top of Page](#)]

How does eValid know about "objects" on my WebSite? Because eValid is a true fully-featured Web browser it knows "internally" how each page of your WebSite is organized and structured. This deep internal knowledge is what is used to provide eValid with its unique Object Mode capability. This same deep knowledge gives eValid the ability to easily and quickly generate complex test sequences for pages that include FORMs and many links.

What does the script language look like? The script language is a very simple command language format. You can edit scripts easily or use a command to create scripts by hand. Most people record scripts and then hand-modify them to "fine tune" the script so it has the desired properties.

Why don't your regular products, like CAPBAK/MSW and CAPBAK/X work on my WebSite? How is eValid different? Actually, those products work pretty well with browsers, but they don't have the pure web-centric object-mode and browser-based content validation and timing capabilities that eValid has. CAPBAK/X or CAPBAK/MSW are very effective tools if you are doing testing that combines activities both inside and outside the web browser. eValid is needed for object-oriented testing inside the browser; you use the other capture/playback engine(s) outside the browser.

Why do you use a separate Web Browser? Why don't you just use IE or Netscape/Navigator and a regular capture/playback System? That would be OK except it is *quite difficult* to get true object-oriented operation from an OS-based capture/playback system. Even CAPBAK/MSW and CAPBAK/X have difficulty "seeing" objects in a web browser's display area. By building eValid as an adjunct to a browser we eliminate 99% of the complexity of the capture/playback function and gain a number of advantages:

- Real object oriented recordings that refer to the "objects" in your web pages regardless of how they are rendered on your screen.
- The ability to do very-precise timing analyses.
- The ability to do content validation, a critical feature for E-commerce validation and verification functions.

A pure web browser typically has editors and Email and NewsGroup support and bookmarks, etc.; all of these are very useful tools but the don't let you focus on the job of analyzing a WebSite. By using a Test Enabled Web Browser, eValid's proprietary technology can let you focus your testing effort on the WebSite under test. Besides,

testing a browser is really somebody else's job, isn't it?

Will I see what I recorded during playback? Yes. Because eValid is 100% object oriented you will only see the *effect* of what you recorded when you play back a session. This is because we record only the results of what you do, not the causes. For example, if you are on a FORM and you click a two position radio button back and forth 100 times and then click SUBMIT, eValid records only the last button you clicked -- it doesn't care how you arrived at the result, just what the result is. If you are using the TrueTime mode, then eValid will wait the appropriate length of time during playback, assuring realistic playback loading.

Validation Features [Top of Page]

What will happen to my script if my WebSite changes? How re-usable are my test scripts? There are many types of errors that eValid can tell you about, and many unimportant changes that eValid ignores. Because eValid is a true *object oriented* system, changes to a web page that don't affect the structure and layout of a page usually PASS. But there are many different ways to use eValid. eValid is easily configurable to meet your all of your WebSite test and validation requirements.

What Does the Validate Selected Text Feature Do? The powerful *Validate Selected Text* feature lets you spot-check any page to make sure a required element of text on it is in *exactly* the place it is supposed to be. An eValid playback using this feature will PASS only if the specified text is in the same *relative* position on the page as it was when you made the recording. Only the user-selected text is checked during the playback process; changes to other, non-critical (and non-selected) parts of the page will not make the test FAIL. Note that there is a limit to how many characters there can be in each check, but there is no limit to the number of checks that you make of the same page.

What kind of documentation is supplied with eValid? All of the documentation for eValid is delivered as HTML material that is included in the product or is available from our WebSite. This FAQ section is part of the HTML documentation. Also, the most recent version of eValid will automatically use the most recent version of the corresponding user documentation from our WebSite.

What happens if my HTML coding is "not up to standard?" Will eValid still work? Yes, eValid will work just fine. eValid follows the generally accepted page rendering rules supported by Microsoft and Internet Explorer.

How quickly can I use eValid to find errors? We're confident that you will likely find things wrong with your WebSite that you *really want to fix* in the first hour of operation!

Testing Wizards [Top of Page]

What Does the Link Test Wizard Do? For the WebSite page that you are looking at, the Link Test Wizard creates a complete test script for that page that visits every linked area and records the name of each link and the text that underlies it. When you play this back on the current page, the script the wizard has generated will visit every link, wait for it to show up, and then go BACK to the current page. Errors of various types -- too many different kinds to list here -- are reported in the message area.

What Does the Form Test Wizard Do? For a page that contains an FORM that you are looking at, the Form Test Wizard creates a complete test script for that page that visits every input area, clicks on every button, tries every option, and types a pre-determined text into every text region. It then SUBMIT's the FORM for processing by the WebSite. When you play this back on the current page, the script the wizard has generated will type in the same information as when the script was created. If your form has changed the differences between the original and the changed form will be noted in the messages area.

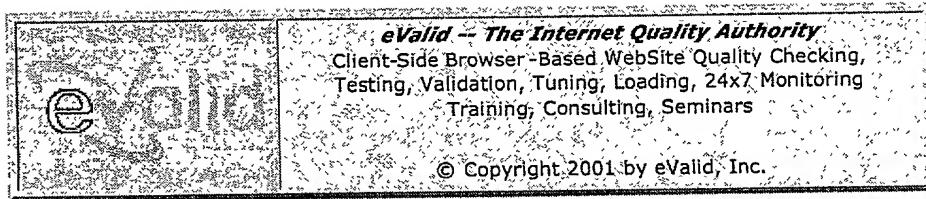
What Does the Validate All Text Wizard Do? This very powerful wizard creates a set of validation checks for the current page. If you play back this script at a later time, any differences between the content recorded by the wizard and the current contents of the page will be an error. Note that these are differences in **text content** only. The layout and rendering of the page don't make any difference here. It is important to understand that this feature is much more powerful than simply differencing the two HTML pages. With eValid you have the chance to validate the **content** of a page independent of the layout.

Do I Have to Use the Built-In Test Wizards? No, you don't have to use the wizards. If you manually *record a test* on a page or set of pages that includes any combination of links and/or FORM's entries your test will play back exactly as you recorded it. You can save this test and re-use it later on as you like. The wizards produce tests based on a single web page, but a manual test is not limited in any way to one web page or even to a group of web pages -- not even to a single WebSite. Remember, each wizard always produces a test based on exactly one WebSite page that is *known* to play back reliably.

Limitations and Restrictions [Top of Page]

Are there any limits or restrictions on eValid? There are some limitations in the current versions of the product. Please see the Product Release Notes for complete details on the current version and any limitations that apply to it.

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eValid -- Ver. 3.0 Feature Additions and Changes

(Ver. 3.0 -- 14Sep01 Build)

[Download FREE Evaluation Copy](#)

[eValid Home](#)

eValid Ver. 3.0 includes a number of changes and additions compared with the features available in eValid Ver. 2.2. See the Ver. 2.2 Release Notes for information about those versions. The current builds of eValid represent the arrival of the product at the status of a Comprehensive WebSite Test Environment. (See the accompanying Press Release.)

Enhanced/Simplified GUI

We have made improvements across the board in the eValid GUI. There are new, simpler pathways to most functions, and graphical access buttons for all the main functions.

eValid Metrics PopUp

There's a new **FREE** feature of eValid that all web surfers and testers will appreciate. The eValid Metrics PopUp automatically measures a set of metrics for the page it has just processed.

See the Metrics PopUp documentation for complete details.

eV.SiteMap Performs Whole-WebSite Detailed Analysis

This feature gives eValid the ability to map a complete site -- entirely from the user's (browser) perspective -- and totally under user control.

See the eV.SiteMap documentation for complete details and examples of how this powerful eValid subsystem operates.

Special support is available for sites that require a login sequence before mapping can begin. This is done with a new &siteAnalysis command that can be appended to any eValid playback script.

eV.Generate System

This feature gives eValid the capability to generate scripts based on the use of a script template and a table of values. Special eVgenerate commands convert a *.evt file into a *.evs file. See the eV.Generate documentation for complete details and examples of how this powerful eValid subsystem operates.

There are special eVgenerate option commands that access the main functions of the eValid test data generation facility:

- evgenRand *.evt *.tbl *.evs [count]. Generates a *.evs script file from the supplied *.evt template file using data from the specific *.evt table file, using uniform random distributions of the possible selections, and then plays it back. If present, the count parameter specifies the number of times eVgenerate will execute this process.
- evgenSequentialReset *.evs. Resets the sequence counter for the named *.evs file to the beginning of the sequence.
- evgenSequential *.evt *.tbl *.evs [count]. Generates the next sequential instance of a *.evs script file using the named *.evt template file using the specified *.tbl table file, and plays it back. If present, the count parameter specifies the number of times eVgenerate will execute this process.

eV.Manage System

This new capability provides for management of large sets of eValid scripts that are organized as a *test suite*. The eV.Manage design target for test suites it can handle is ~1000 organized into 10-100 groups.

Under eV.Manage control the user can:

- Add test scripts into the *test tree* or delete tests when no longer needed.
- Select tests or groups of tests from the test tree to be executed by eValid.
- Analyze results of individual tests or groups of tests with the *Test Report* or with the *Regression Report*.

See the eV.Manage feature summary for complete details and examples of how this powerful eValid subsystem operates.

eV.Coverage System Provides Java Applet Coverage

We have interfaced TCAT/Java with eValid to make it possible to generate test coverage data for Java Applets as they execute in the eValid browser. See the complete eVcoverage documentation for details.

Download DEMO or EVAL versions of TCAT/Java here

Preferences Profiles Now Available

To assist users in managing the complex settings now available in eValid we have added the ability to define, save and restore named User Profiles. The profile support feature is available for both Record/Play preferences and Site Analysis preferences menus. Up to 16 profile names can be saved for each of the two major groups of eValid options. Pre-defined profiles can also be selected from command-line invocations of eValid.

Record/Play of Absolute Mouse Drags

eValid can now record and play absolute mouse drags. Recording starts when you left-click the mouse and continues until you release the mouse. This feature is very useful for recording slider bars and other kinds of positioning devices.

Improved File Viewing

There are many new convenience features to simplify viewing and graphing of eValid results. Improvements have been made that allow charting of either the last test or all prior tests currently in the logs, better control of when logs are purged or appended. See the detailed description of these new viewing features.

Dependent Window Support

We have added support for recording and playback of dependent windows. This feature is important if you are using XML and/or significant amounts of JavaScript which supports communication between a child window (which collects user data) and a parent (which analyzes it). See the complete technical description of this important capability.

Enhanced Link Wizard Popup

The eValid Link Wizard has been extended to provide for all combinations of either Static or Dynamic, and either Simple or Advanced link checking. Static checking applies to the current page at the time it is recorded; Dynamic checking applies to the page's links at playback time. Simple Checking involves direct use of GotoLink commands, whereas Advanced Checking involves use of FollowLink and GoBackTo combinations for each link.

Application Mode Recording

eValid now includes a new *Application Mode* capability to allow recording and playing from an application that runs in the browser, e.g. Adobe Acrobat or MS Word or a Java Application. All keystrokes are recorded with a new *AbsSysKey* command. The new Application Mode is available from the eValid > Record Mode > Advanced Recording > Application Mode selection.

Time Stamp Capability

eValid now includes the ability to time stamp information into selected text boxes on a page so that you can send the information to the server and check how long a response takes. Here are the available time stamp fields with a sample of the output they produce when used in eValid.

```
%%DYN_SHORTDATE%%      = 06/15/01
%%DYN_LONGDATE%%      = Friday, June 15, 2001
%%DYN_TIME12%%        = 03:49:08 PM
%%DYN_TIME24%%        = 15:49:08
%%DYN_TIMESTAMP%%     = 2001:06:15:15:49:08
%%DYN_SYSTIME%%       = 0992645348.065
%%FIX_SHORTDATE%%     = 06/15/01
%%FIX_LONGDATE%%      = Friday, June 15, 2001
%%FIX_TIME12%%        = 03:48:52 PM
%%FIX_TIME24%%        = 15:48:52
%%FIX_TIMESTAMP%%     = 2001:06:15:15:48:52
%%FIX_SYSTIME%%       = 0992645332.913
```

This is a highly useful feature for time-sensitive monitors that must output the results of a form within a certain time. See the Ver. 3.0 documentation for a detailed explanation.

AutoPlay Feature

When equipped with the AUTOPLAY license key, eValid will create the special # AUTOPLAY=Key as each recording is completed or after each script edit session ends. An unaltered eValid script with a valid AUTOPLAY tag will play back on any eValid browser -- including those which do not currently have an active or valid license. This feature is ideal for creating automatic eValid playbacks that illustrate product operation within the browser, or which provide for training about a complex WebSite.

Validate Clipboard Text

The validation function in eValid has been extended to analysis of contents on the Clipboard. This can be used to handle capture of text that otherwise cannot be validated by regular means, e.g. in an Applet or Application for which text access is not available.

To set up dynamic content validation, the user selects text in the application, and then copies it to the Clipboard. The new eValid ValidateClipboardText command records and/or validates the text that appears within the Clipboard.

Input Text Encryption

You can now choose to encrypt text entry fields in HTML or in Applet Text Entry elements. Control of this feature is from the ScriptDialog window. The push button ??? toggles between the encrypted and un-encrypted option. Playback of files recorded with the encryption option present, automatically de-crypts the text entry fields.

Hot Key Changes

To avoid conflicts, we have changed the definition of some of the shortcut "hotkeys". See the eValid documentation for details on the new definitions.

Improved Page Timing

In prior versions of eValid, certain types of HTML pages did not always produce completely repeatable download timings. This problem has been repaired in the current release with the introduction of a new, more powerful page download synchronization implementation.

LoadTest STOP Option

We have extended the meaning of the STOP button in LoadTest mode to include turning off ALL of the currently executing sub-browsers. (Previously, they had to be stopped one by one.)

System Information Pulldown

There is a new option on the eValid toolbar at Help > System Information. It will provide precise data about the system you are running on. The most important item is the version of IE you are using. We recommend IE 5.5 at least and IE 5.50 preferably. This pulldown also gives you the exact name of the machine to which your eValid license applies.

Link Wizard Extensions

There is an expanded version of the Link Wizard that now includes four possible types of automatic link creation. While making a test recording using eValid > Record Mode > Wizards > Link Test Wizard you are given these options:

- **Static Simple** The recording of links to check is made in the current eValid script file. Link checking is done with the GoTo command.
- **Static Advanced** The recording of links to check is made in the current eValid script file. Link checking is done with a FollowLink command followed by a GoBack command.
- **Dynamic Simple** The checking of links is done with a DynamicLinkCheck command so that the links being checked are generated from the current page at test playback time. Link checking is done with the GoTo command.
- **Dynamic Advanced** The checking of links is done with a DynamicLinkCheck command so that the links being checked are generated from the current page at test playback time. Link checking is done with a FollowLink command followed by a GoBack command.

SiteMap Analysis of JavaScript Links

The SiteMap functional has been extended to permit checking of links that appear in JavaScript. This makes it possible to do detailed mappings of sites that have a secure login.

Skip Top Page Refresh Option

There is a new option in the SiteMap Preferences to skip the step that normally re-loads the first page. Skipping top page reload will preserve the state of the eValid browser after a login, for example, when refreshing the page would in some cases cancel the login.

Revised Pricing

To simplify licensing and to provide the greatest flexibility in selecting the eValid features you want, we have made some revisions and simplifications to the Price List. The major change is the introduction of layered licensing, so that you can license only the features of eValid that you need. Please contact eValid at sales@soft.com for information about upgrade pricing if you currently have a Ver. 2.n license key.

Download Locations

If you already have a valid license key you can download the new version of eValid Ver.3.0 from:

Demo Version: <ftp://ftp.soft.com/pub/windows/evalid/demoevalid30.exe>
Full Version: <ftp://ftp.soft.com/pub/windows/evalid/evalid30.exe>

Consolidated Documentation

The Users Manual for eValid is now available as a single PDF-format document which is suitable for printing.

Revised Licensing

We have made changes to the licensing to provide for two kinds of selection: which level of record/play capability you have, and

what additional features (e.g. LOAD) you have included. Also, user licenses now can be set to check the user's current Host Name. All of these changes have been done in a way that minimizes conflicts with the prior license keys. Complete details are provided when new license keys are sent to users by email.

Supported Platforms

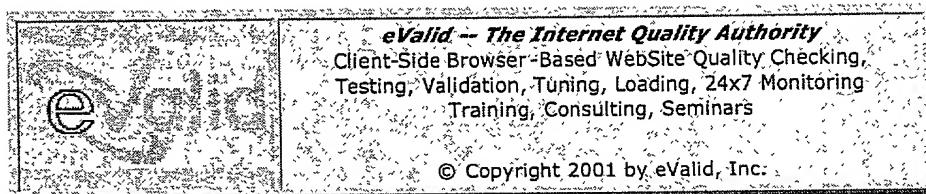
We are focusing support for eValid on the Windows NT/2000 platforms. In some cases scripts that work perfectly well on these platforms may have problems if you are running Windows 98 (even when including the latest SP's) and will very likely have severe problems or will fail if you are on Windows 95.

Required Software

Even though eValid is a free-standing browser, its operation is based on and is standardized to interoperate correctly with Internet Explorer. We highly recommend you have IE 5.50 on your machine. (Download Internet Explorer Ver. 5.x).

eValid Home

FBI - Federal Bureau of Investigation



First Timers' Page

Are you a first time eValid user? Here are some facts about eValid that should help you get going with this exciting product.

What Is eValid? [Click here for a picture of eValid's operation.]

- eValid is a fully-featured web browser with embedded mapping, testing, loading, and timing/tuning functionality. It's compatible with the IE browser.
- eValid is your true WebSite Quality Partner. You can use it to find out important things about your WebSite. Or your competitor's WebSite. Or anyone's WebSite.

How Does eValid Get Your Work Done?

- eValid analyzes WebSites by looking at a page and searching through all of the pages that page points to, etc. Because eValid is a browser it finds out the data it needs by looking at the pages it downloads. All automatically.
- eValid tests WebSites by recording a test and then playing the resulting test scripts. During playback you're notified if for any reason eValid finds an error. There are very detailed playback logs -- spreadsheet and database ready -- that show everything happened.
- eValid loads your servers by running dozens or hundreds of eValid's in the background. Every copy of eValid is independent, and they all play back real scripts -- so there's no question about the accuracy or authenticity of the loading.
- eValid tunes selected pages by collecting very detailed timing data about each and every part of a page. You see these results in flexible, easy to read charts.

What Is eValid Good For?

- Site Mapping: Search any WebSite or sub-WebSite for timing, size, and link health properties. The only way to find broken links in dynamically generated pages is from a browser! You can get reports that show slow-loading pages -- you set the time threshold.
- Functional Testing: Record scripts today that capture information about how your WebSite is supposed to be. When you play them back later eValid will find changes and errors!
- Content Validation: Ensure the page you requested is the page you actually get.
- Timing Session: Measure the time to play back a test session -- one or many pages, including complex transactions, sessions that "maintain state" or use secure protocols.
- Loading Your Server: Hit your WebSite server with many simultaneous page requests from simulated users to see if your server can support high loads. Every simulated user is 100% realistic, because they all run from independent copies of eValid.
- Tuning Page Design: The detailed timings you get show you quickly where the biggest pieces of a page are -- so you know immediately what to improve!

What Is Unique About eValid?

- It Really Is A Browser: eValid is a full featured IE-compatible browser. Except that it has all of the analysis and test functionality built in. The results you get with eValid are 100% identical to what your users see.
- Point and Click Operation: Almost everything is done with simple pulldown menus.
- Fully Functional Browser: eValid is a browser, so its view is the same as your customers'.
- Totally Object Oriented (WYSIWYG): All your tests are purely OO because they relate to the WebSite you're testing as seen from a browser.
- A Powerful Test Engine: If you want to do anything to a WebSite, you can do it with eValid.

What Should I Do First?

First, click on the evalid menu on the browser toolbar. Become familiar with this menu; it's the gateway to all of eValid's powerful functions. Experiment! Have fun trying things out.

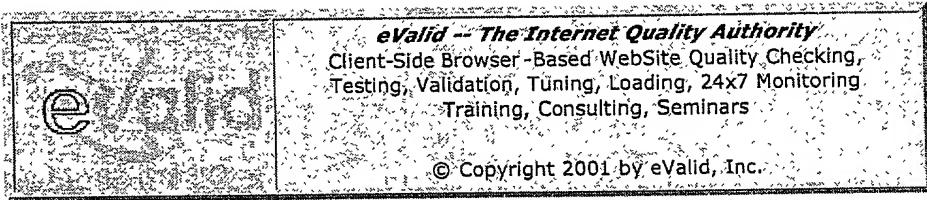
Use the evalid > Site Analysis Mode > Site Analysis Preferences to set up a WebSite Mapping. Reports go direct to the screen. Try generating the Unavailable Pages report for www.cnn.com.

Begin creating *.evs scripts for playback. Select eValid > View Script Window to pop up the eValid Script Window. You will be able to see eValid's recording engine create the *.evs script in *real time*. In the eValid window, type the WebSite where you would like to begin recording into the Address field.

Use eValid > Record Mode > Start Recording to begin recording your first script. Navigate through the pages as you would normally in any Web browser. As you traverse through the WebSite notice how eValid records your actions in the script window. When you are done recording, click eValid > Stop Recording.

The recorded script is now ready to be played back. Start playback with eValid > Playback Mode > Start Playback. You may want to use eValid > View > Event Log to watch what is happening as your script runs.

EVALID RECORDING



Evaluation Hints (Ver. 3.0)

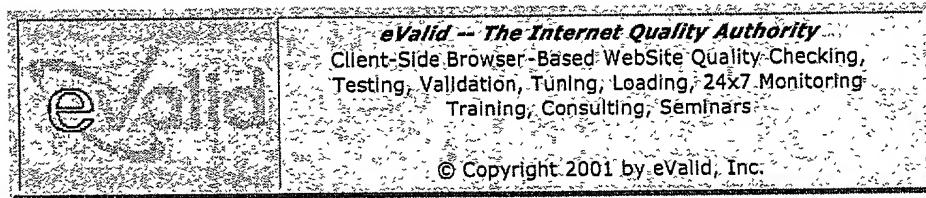
eValid is a powerful tool for testing WebSites, with many features and capabilities. This page provides some basic **hints** on how **best** to evaluate and assess eValid if you are a first-time or inexperienced user -- or even if you are an expert!.

An additional source of hints is the set of Practical Testing Applications of eValid and the collection of Advanced Demo Applications of eValid that show scripts and results.

eValid Evaluation Hints	
Study The Menus	Click on the <code>eValid</code> entry on the toolbar and study the menu and pulldown structure. Click on the Help > Documentation > User Manual and get a feel for the way the documentation is organized.
Mapping Sites	
Generate a SiteMap	Navigate to some website for which you want a SiteMap analysis. Click on <code>eValid</code> > Site Analysis Mode > Start Start Analysis and watch as eValid visits pages, filters results, and constructs the SiteMap before your eyes.
Locate Slow-Loading Pages	Follow the step-by-step instructions to generate a report showing slow-loading pages. Watch as eValid visits every page on the selected site and filters out the ones that load too slowly.
Functional Testing	
Watch The Recording	Use the sequence <code>eValid</code> > View > Script Window to view the script file as you create it during a recording.
Navigation	Navigate normally, as you would with any Web browser. Note how eValid records details of your navigation in the script file.
Content Validation	Use the pulldown menu sequence <code>eValid</code> > Record Mode > Validate > ... to validate the WebSites' text, elements, size, date, etc. Study what eValid puts in the script file -- it is the data that will be checked on playback.
Recording MouseClicks, MouseOvers	Keep in mind that some options found in <code>eValid</code> > Settings > Preferences > Advanced Preferences will override Applet MouseClicks found on some WebSites. Options available include recordings of MouseClick and MouseOver.
SpotCheck	Perform spot-checks to see if any of the text or objects in the WebSite have been changed.
	During a recording select a piece of text (200 character limit) by right-clicking with the mouse. Then use the pulldown sequence <code>eValid</code> > Record Mode > Validate > Selected > Text to record the highlighted text for future validation.
Timing/Tuning	
Timing	At the beginning of the recording use the pulldown sequence <code>eValid</code> > Record Mode > Timer >

Activities	Reset Timer to reset the internal timer. Make your recording as you would normally. Then use the pulldown sequence evalid > Record Mode > Timer > Read Timer to read the value of the timer. You can reset and read the timer as many times as you want. On playback you can see the timing data using the sequence evalid > View > Timing Log.
Charts	Use the pulldown sequence evalid > View > Log Charts to see graphic representations of playbacks you have completed.
Increasing the Detail	Use the pulldown sequence evalid > Settings > Preferences and choose the <i>Detailed Log Messages</i> option. This will generate the greatest amount of detail and make the charts more useful.

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eValid Documentation Keyword Search

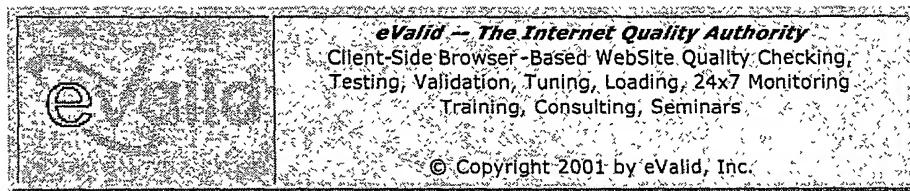
To search the eValid documentation simply type in search keywords you are looking for.

Do not include any punctuation and special characters.

The search will include all pages in the complete eValid Documentation.

A screenshot of a search form. It features a large input field labeled 'Search For Keywords:' at the top. Below it is a section labeled 'Boolean Connector:' containing a dropdown menu set to 'AND'. To the right of this is a section labeled 'Case Sensitivity:' with a dropdown menu set to 'Insensitive'. At the bottom of the form are two buttons: 'SEARCH' on the left and 'Reset Form' on the right.

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Page Metrics Popup

eValid Home

The Metrics Popup is intended to act as a complexity monitor as you navigate WebSites with the eValid browser.

Sample Display

Below is a sample of the Metrics PopUp you see when you have the eValid Metrics PopUp feature turned on.

A screenshot of the eValid Page Metrics Popup window. The title bar says "Page Metrics for www.ibm.com". The window contains a table of metrics:

Base Page Size	17938
Page Last Modified	08/07/2001 16:57:12
Bytes (newly) Downloaded	289670
Files (newly) Downloaded	268
Download Time (secs)	3.375
Number of HTML Elements	359
Number of Frames	0
Number of IFRAMES	0
Number of HyperLinks	41
Number of Images	60
Number of Hidden Fields	8
Number of Inline Scripts	2
Number of Executable Objects	0
Number of LINK Tags	1
Number of META Tags	20
Visible Text Character Count	755

Metrics Information

Turning On Page Metrics

You can toggle the Page Metrics display ON and OFF with the command eValid > Display Page Metrics .

Once the Page Metrics display says ON it will stay ON until you turn it OFF or start an eValid playback session.

The Page Metrics popup is available to you whenever you use the eValid browser. The Page Metrics always applies to the current page (the page you have just viewed). You do not need a valid license key to use this feature of eValid.

Page Metrics History

The Page Metrics keeps a history on pages visited. To clear the history, turn the Page Metrics OFF and then back ON.

Metrics For Multiple Frames

The data shown is always for the *first frame* if there are multiple frames. To read the metric data for other frames on the page, position the cursor within the frame in question and use **ctrl + Left Click**.

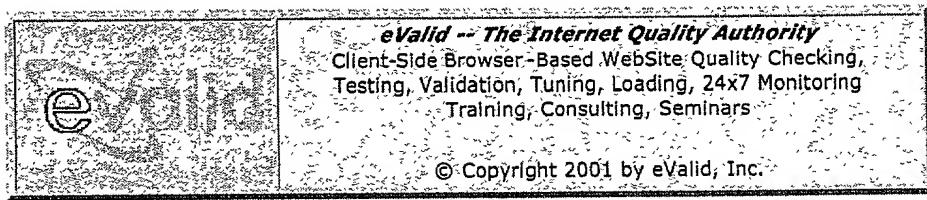
Additional Comments

The Page Metrics data pertains to the current page, and it is derived as the page is downloaded. If you refresh your view of that

page the Page Metrics is ON, some of the metric values associated with the download may change (you updated the page but didn't download anything).

It is best to operate with the eValid Cache Manager set to Never Use Cache so that you always see the effect of downloaded pages. Of course, pages that are not in the cache are *new* and their characteristics are always displayed.

PDF417 352102



Page Metrics Popup Definitions

[eValid Home](#)

The Metrics Popup is intended to act as a complexity monitor as you navigate WebSites with the eValid browser. Here are the definitions of the values displayed.

[eValid](#) [About The Page Metrics Popup](#)

The Metrics Popup is an immediate complexity monitor for pages you visit as you navigate WebSites with the eValid browser.

[Return to Metrics Popup](#)

Metric Name	Description
Base Page Size	Size in bytes of URL basic page
Page Last Modified	Time Stamp (dynamic pages will show current date & time)
Bytes (newly) Downloaded	Total number of bytes downloaded & cached
Files (newly) Downloaded	Total number of files downloaded & cached
Download Time (secs)	Time taken to download and render the page
Number of HTML Elements	Count of all Tags on the page
Number of Frames	Count of all FRAME Tags
Number of IFrames	Count of all IFRAME Tags
Number of HyperLinks	Count of all 'href's in A & AREA Tags
Number of Images	Count of all images on the page
Number of Hidden Fields	Count of all INPUT Tags with type=hidden
Number of Inline Scripts	Count of all SCRIPT Tags
Number of Executable Objects	Count of all OBJECT Tags, includes Applets, Flash, etc.
Number of LINK Tags	Count of all LINK Tags (found in HEAD)
Number of META Tags	Count of all META Tags (found in HEAD)
Visible Text Character Count	All visible text characters (including Title)

Turning On Page Metrics
You can toggle the Page Metrics display ON and OFF from the eValid menu: eValid > Display Page Metrics.
Once on the Page Metrics says ON until either you turn it OFF or until you start an evalid recording or playback session.
The Page Metrics popup is available to you whenever you use the eValid browser. The Page Metrics always apply to the current page (the page you have just viewed). You do not need to have a valid license key to use this feature of eValid.

Additional Note
The Page Metrics data pertains to the current page and it is derived as the page is downloaded. If you refresh your view of that page some of the metrics values associated with the page may change (you updated the page but you didn't download/cache anything new).
You can clear the cache at any time by using the Delete All or Delete Selection buttons in the eValid Cache Manager.

[Return to Metrics Popup](#)

Turning On Page Metrics

You can toggle the Page Metrics display ON and OFF with the command eValid > Display Page Metrics.

Once on the Page Metrics says ON until either you turn it OFF or until you start an eValid playback session.

The Page Metrics popup is available to you whenever you use the eValid browser. The Page Metrics always apply to the current page (the page you have just viewed). You do not need to have a valid license key to use this feature of eValid.

Page Metrics History

The Page Metrics keep a history on pages visited. To clear the history turn the Page Metrics OFF and then back ON.

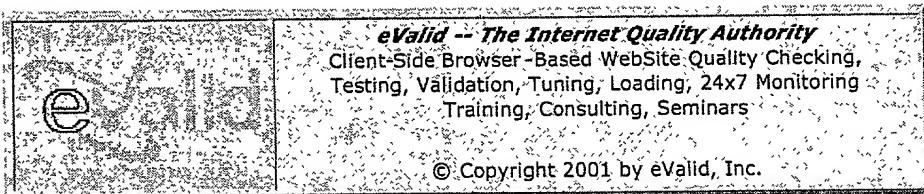
Metrics For Multiple Frames

The data shown is always for the *first frame* if there are multiple frames. To read the metric data for other frames on the page, position the cursor within the frame in question and use **Ctrl + Left Click**.

Additional Comments

The Page Metrics data pertains to the current page and it is derived as the page is downloaded. If you refresh your view of that page the Page Metrics some of the metric values associated with download may change (you updated the page but didn't download anything).

It is best to operate with the eValid Cache Manager set to Never Use Cache so that you always see the effect of downloaded pages. Of course, pages that are not in the cache are *new* and their characteristics are always displayed.



QuickLook: The eValid WebSite Test Solution

eValid changes your thinking about testing WebSites!

eValid is a patent-pending Test Enabled Web Browser(tm) for Windows NT/2000. eValid performs all functions needed for detailed WebSite static and dynamic testing, QA/Validation, page timing and tuning, and realistic and scalable load generation.

Because eValid is a browser it has native capabilities that handle testing of WebSite features that are difficult, awkward, or even impossible with other methods such as those based on viewing a website from the Windows OS level.

Download a FREE Auto-EVAL, DEMO or extended EVAL Version.

The eValid product suite has a very rich technical feature set that supports site mapping, functional testing, website timing and tuning, and loading and capacity analysis, Java coverage analysis, and test data generation (Suite Architecture):

eValid -- General Features

- Full capability browser (100% IE compatible).
- Intuitive on-browser GUI and documentation.
- Record/playback of sessions in combined RealTime and ObjectMode.
- Fully editable recordings/scripts.
- LogFiles 100% spreadsheet, database ready.
- Full support for testing all types of user-interactivity: HTML forms, Java Applets, Modal Dialogs, etc.

eV.SiteMap -- WebSite Mapping & Analysis

- Controlled website search limited by depth, number of pages, total time, protocols, file extensions.
- Selection of search mode (Full/foreground, background, quick).
- Multiple real-time report filters: slow-loading pages, unavailable links, too-old links, too-large links.
- Search all examined pages for string match/not-match.

eV.Testing -- Functional Testing & Content Validation

- Multiple content validation modes: content, document features, URLs, text fragments, selected images, image parts, and applets.
- JavaScript and VBScript fully supported.
- Advanced Recording features for Java applets, ActiveX controls, Modal Dialogs.
- Wizards to exercise all links on a page, push all buttons on a FORM, and manipulate a FORM's complete contents.
- Pause/Resume, SingleStep, Run Multiple, Run Forever playback control.
- Screen area validation and playback synchronization.
- Secure session support.
- Command line interface and interactive API interface.

eV.LoadTest -- WebSite Loading & Capacity Analysis

- 100% browser-based user scenario simulations.
- LoadTest feature chains multiple scripts into realistic loading scenarios.
- Multiple-browser (e.g. 100+) auto-launch.
- Dialup modem simulation (8-1024 kbps).
- Cache management feature to play back tests with no cache or an initially empty cache, with or without cookies.
- Unlimited simultaneous user LoadTest licensing.
- Advanced interactive API interface available.

eV.Tuning -- WebSite Timing & Page Tuning

- Detailed timing including analysis of 1st and 2nd tier transaction times.

- Timing includes DNS lookup, redirects, time to 1st byte, all separate components, final page rendering.
- Session time limits and alarm sequences.
- Event, timing charts, performance, and history charts.
- Page tuning data and performance timings to 1 msec resolution.
- Built in graphical reporting.
- Synchronization for Flash, Shockwave, etc.

eV.Generate -- Test File Data Generation

- Creation of sequential data to a parametric script file.
- Creation of random data to a parametric script file.
- Capacity for large amounts of data.

eV.Manager -- Test Suite Management

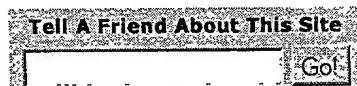
- Creation of a test tree to handle 100's to 1000's of eValid tests.
- Selection of tests to execute under eV.Manager control.
- Automatic execution of tests with complete result logging.
- PASS/FAIL reporting, regression reports, complete test history.
- Simplified test script check-in and update.

eV.Coverage -- Java Applet/Application Test Data Coverage

- Instrumentation with TCAT/Java.
- Online coverage data collection via jruntime.
- TCAT/Java reporting of complete test coverage.

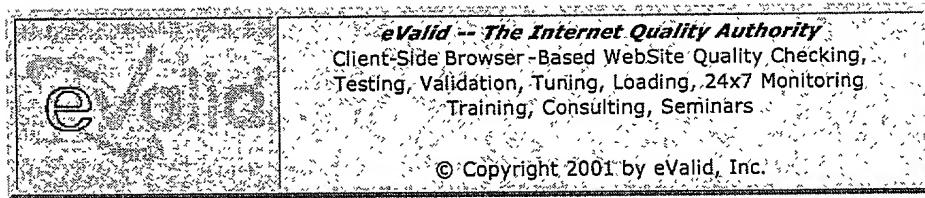
Resources Supporting eValid

- A detailed feature/benefit analysis .
- A description of the powerful eValid LoadTest feature.
- A quick look at the eValid GUI.
- An on-line pricing and order form.



**eValid, Inc.
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San Francisco, CA 94107 USA**

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FAX [+1] 415.550.3030
info@soft.com



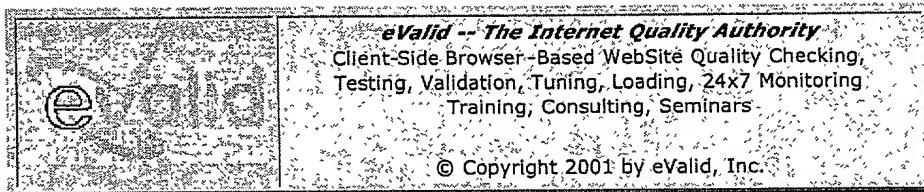
Getting Started

eValid is a full featured Web browser. Use it to surf the Web normally. It's also a powerful site analysis, test record/playback tool, timing and tuning system, and load generation system. As a record/playback engine eValid can record and play your navigation, validate content, run timing tests, or run test wizards on any WebSite. Scripts are easy to understand and fully editable.

- **Status Indicator.** Browsing, recording, playing back: your status is shown by the icon in the upper right hand side of your eValid browser.
- **View the Script and Event Log Files During Recording or Playback.** Click **eValid > View > Script Window** to bring up the Script File Window. Click **eValid > View > Event Log** to bring up the Event Log File Window. When you are making a recording or playing back a script you can see what eValid is doing.
- **Your First Recording -- To Check Links -- Made Simple!** Click your way to a simple link check recording:
 - Click **eValid > Record Mode > Start Recording**. You're now recording! Navigate to your home page or any page with some links.
 - Click **eValid > Record Mode > Wizards > Link Test Wizard**.
 - Click **eValid > Record Mode > Stop Recording**. Your recording is done.
 - Check the script file you generated with **eValid > View > Script Window**.
 - Click **eValid > Playback Mode > Start Playback**. You are now playing back an eValid script file.
 - Click **eValid > View > Message/Error Log**. If any links are missing you'll see error messages identifying them.
- **Timing a Multi-Page Test.** It's simple to time a sequence of actions. Start your recording and then:
 - Click **eValid > Record Mode > Timer > Reset Timer**. This resets the internal timer.
 - Continue navigating to as many pages as you like. Note how eValid records your actions.
 - Click **eValid > Record Mode > Timer > Read Timer**. Or you can set an alarm with a message by selecting **eValid > Record Mode > Timer > Set Alarm**.
 - Click **eValid > Record Mode > Stop Recording**, then **eValid > Playback Mode > Start Playback**.
 - When done click **eValid > View > Timing Log** to see the elapsed time of your test
- **Additional Hints.** Here are some additional hints on how to do simple recordings.
- **Documentation.** Click **Help > Documentation > User Manual** to reach the complete User Manual for eValid.

Have fun with this great new technology! Experiment! Test it out! There's no limit to the kinds of testing you can do on your site with eValid.

In case you find something -- anything -- that doesn't work, or if you need help of any kind, send Email to support@soft.com



Getting Started PopUp (How To Use The eValid PullDown Menu)

eValid is a very intuitive tool that quickly and efficiently creates tests of WebSites by recording user actions, noting properties of pages, and playing back tests with built-in validation checking and performance timing. Tests like these are very powerful in detecting WebSite page changes, imposing load on a server, and in validating content of pages.

This page aims to give you a **Quick Start** in using the eValid product. We've added helpful hints in key places on this page. When you see this hint image (), position your mouse over the symbol to get additional information.

If you feel you are already familiar with eValid's basics, we also have compiled some Helpful Hints on Creating Tests with eValid.

- 1. Launching eValid
- 2. The PullDown Menus
- 3. Making a Recording
- 4. Playing Back A Recording
- 5. Viewing Files
- 6. Using the Timer
- 7. Editing a Recording
- 8. Using the Link Wizard
- 9. Using the FORM Wizard
- 10. Using the Button Wizard
- 11. Validation Functions
- 12. Recording a BenchMark Test
- 13. Recording an E-Commerce Test
- 14. Recording a Security Test
- 15. Recording a SpotCheck Test
- 16. User Preferences
- 17. Cache Management
- 18. Advanced Recording
- 19. Charts
- 20. Getting Help

[Go to the eValid WebSite](#)

1. Launching eValid [\[Top\]](#)

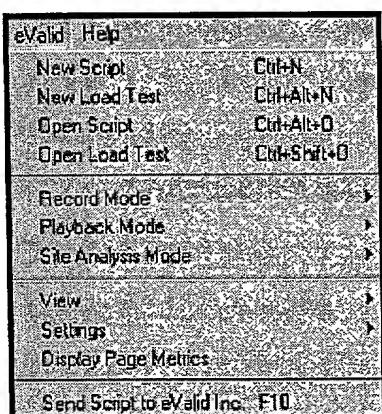


Click the eValid icon on your screen to launch eValid. The display looks just like the IE browser, except you'll see that there are some extra buttons. This IE-like browser **is** eValid, a Test Enabled Web Browser.

eValid must be on the web in order for it to work, but, depending on your license key, you may be able to work on an intranet as well.

Don't look for any extraneous IE features within the eValid browser window; these have been taken out of eValid so you can concentrate on testing your WebSite.

2. The PullDown Menus (eValid and Help) [\[Top\]](#)



Find the eValid button on the eValid tool bar.

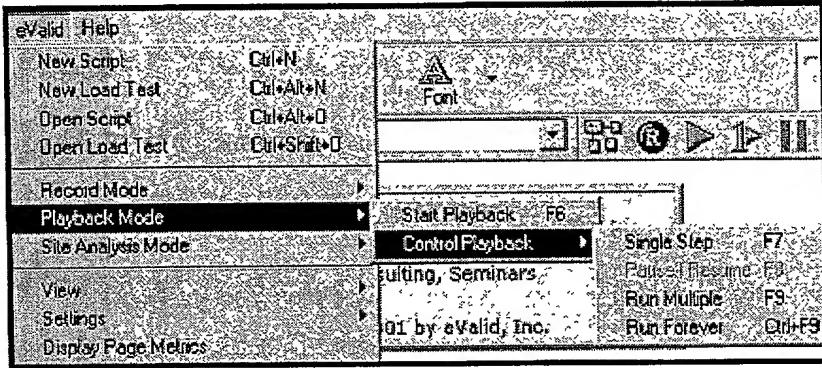
Click eValid to pull down the main eValid functions. The picture at the left shows the options on the eValid menu.

Actions you can take are in solid letters, like eValid > Record Mode > Start Recording in the sample. Conditional actions are shaded out; they change into solid letters when they are available functions for you to use. For example, it makes sense that you wouldn't expect to use the eValid > Record Mode > Wizards > Link Test wizard unless you are recording a test.

3. Making a Recording [Top]

Click eValid > Record Mode > Start Recording. From this point on until you click eValid > Record Mode > Stop Recording everything you do in the browser is saved to the *script file* for later playback. Hint!

4. Playing Back A Recording [Top]

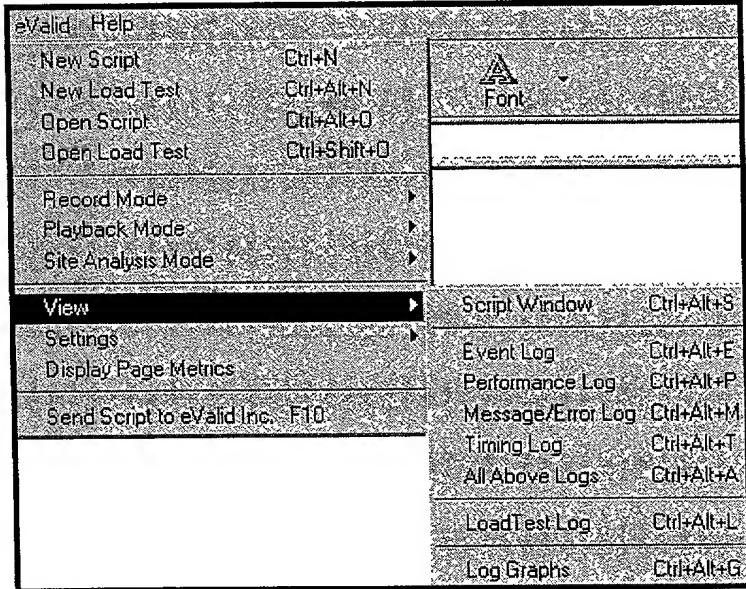


If you've just recorded a script file it is already in eValid's memory. Or, you can click eValid > Open Script to play back a script that you have recorded earlier.

Click eValid > Playback Mode > Start Playback when you want to play back your recording. eValid will follow your actions exactly as you have recorded them. Click eValid > Playback Mode > Stop Playback when you want stop playing back.

You have control over playback by clicking on eValid > Playback Mode > Control Playback. Then you can choose to Pause or Resume. You can also select Single Step, enabling you to see the effect of each recorded event in the script file. Also available is an option to playback the script multiple times by selecting Run Multiple, or run the script infinitely by selecting Run Forever. Hint!

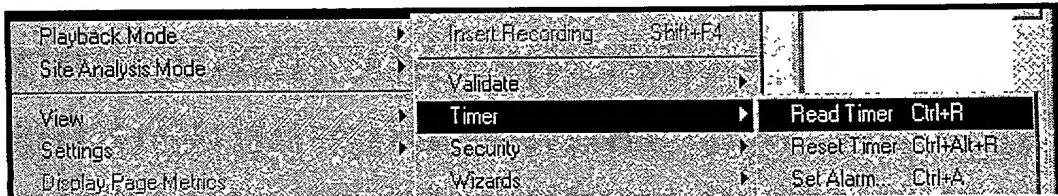
5. Viewing Files [Top]



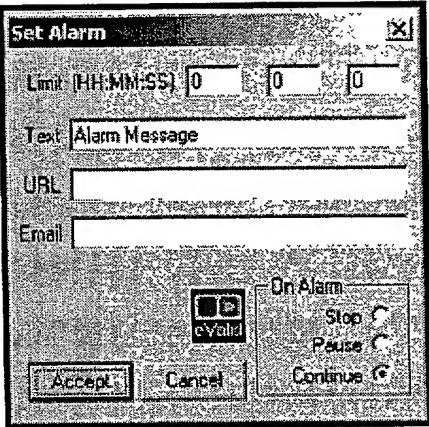
It may help you to view the *script file* -- and other eValid files -- to see exactly how eValid is interpreting your actions. Click eValid > View > Script Window to open a dialog box that shows you your script file.

Under the eValid > View menu you can view the Event Log that shows a complete record of activity, the Message Log where warnings and errors are written, and the Timer Log which shows the output of the timer.

6. Using the Timer Function [Top]



The timer records elapsed time in milliseconds. Click eValid > Record Mode > Timer > Read Timer to read out the time, as often



as you like, in your recording. You can also click eValid > Record Mode > Time > Reset Timer to set the timer to zero. Before the timer is reset, it will read out the accumulated time up to that point.

You can create notification alarms in your script by choosing eValid > Record Mode > Timer > Set Alarm. This will open a dialog box where you can specify when you want the alarm to occur (expressed in Hours, Minutes, Seconds) and the text you want to be printed to the *event log* with the alarm. Once you've decided this, click **Accept** and the alarm will be entered in your recording. Hint!

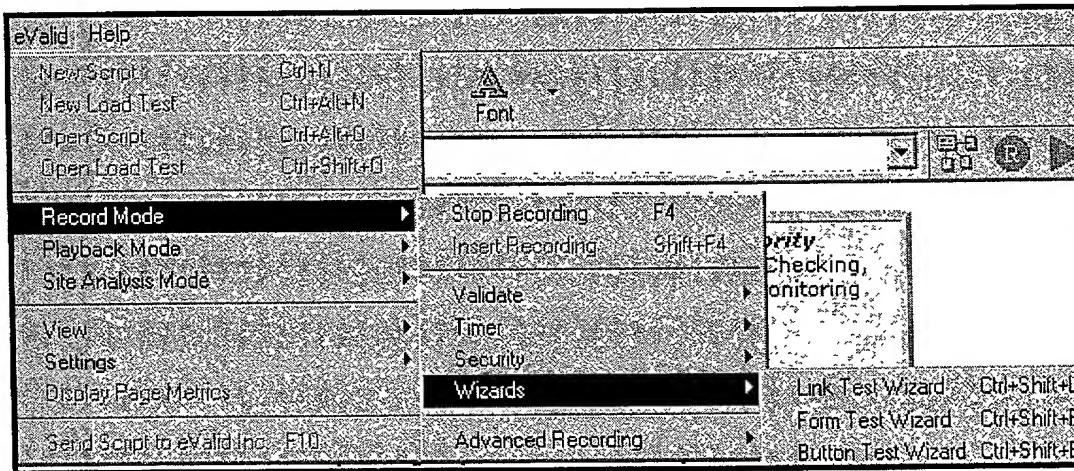
Click **Cancel** if you change your mind.

7. Editing a Recording [Top]

Sometimes you may want to edit your recording. Click eValid > View > Script Window to open the dialog box that shows the script file, then click **Edit**. When you've completed your edits, click **Save**.

To start playback simply click eValid > Playback Mode > Start Playback

8. Using the Link Wizard [Top]



If you have a page with a lot of links and you want to go to them all to make sure they are OK you can make a recording using the Link Wizard.

Start your recording in the usual way. Then, go to a page where you want to check links. Click eValid > Record Mode > Wizards > Link Test Wizard. eValid will automatically insert a reference to every link on your page at that

point in your script file. When you play back your script file you can watch the screen or read the messages in the error log to see if any links failed.

Hint

Remember when using the **Link Wizard** (or any of eValid's Test Wizards) that the "recording" you are making is often less robust than the one you make manually for the same page. The **Link Wizard** is smart, but it doesn't know everything.

9. Using the FORM Wizard [Top]

Start your recording in the usual way. Click **eValid > Record Mode > Wizards > Form Test Wizard**. eValid will automatically insert a reference to every FORM element on your page at that point in your script file.

During playback eValid will visit every FORM element, typing in a standard phrase into every text-entry field and clicking all of the buttons on the page.

10. Using the Button Wizard [Top]

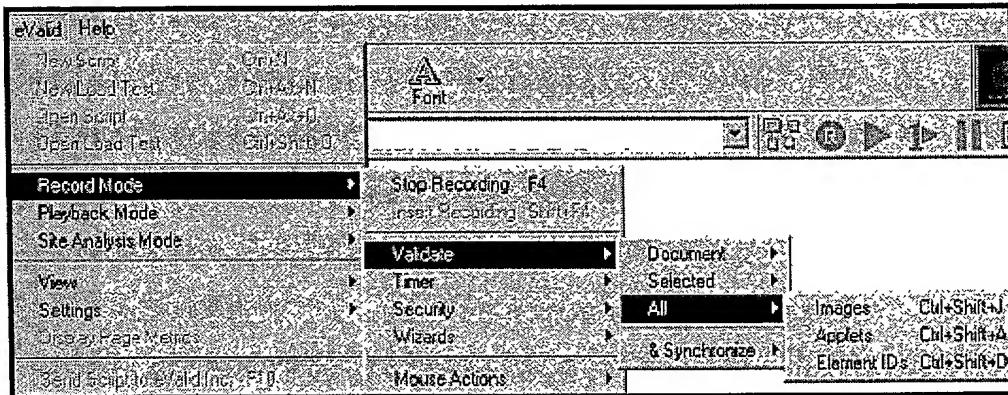
Start your recording in the usual way. Click **eValid > Record Mode > Wizards > Button Wizard**. eValid will automatically insert a reference to every active button on your page at that point in your script file.

During playback eValid will visit every one of these active buttons and click them. (The wizard will "push all your buttons" but doesn't know what they do, so you may have to edit your script file if the actions that result from "push all your buttons" don't make sense.)

11. Validation Functions [Top]

There are several ways to validate the contents of a page on your website: **Hint!**

- Properties of the entire document (**eValid > Record Mode > Validate > Document > ...**),
- Properties of Selected parts of the document (**eValid > Record Mode > Validate > Selected > ...**), or,
- All features of the document (**eValid > Record Mode > Validate > All > ...**).



Use the menu sequence **eValid > Record Mode > Validate > Document** to validate:

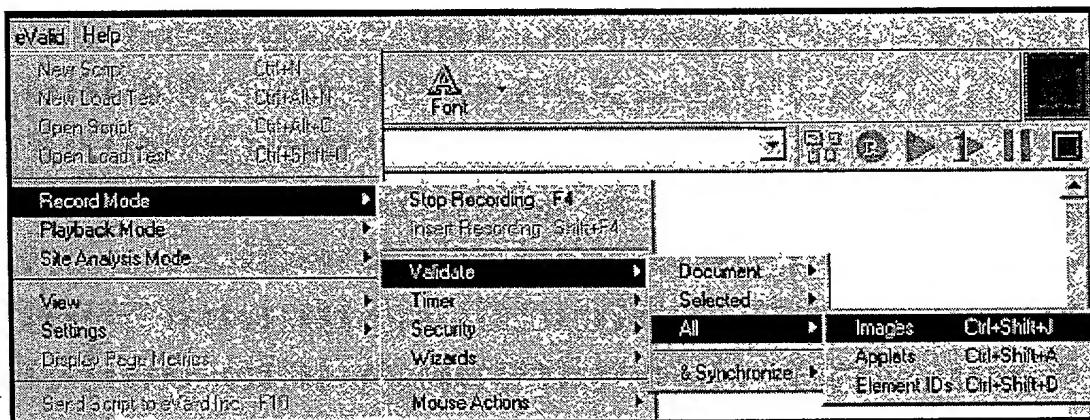
- The **URL** of the document (this is important if you are going to a page that redirects to a page whose URL you don't know but want to confirm);
- Elements**, i.e. the number of elements in the page;
- The **size** of the document in bytes;
- The **Last Modified Date** of the document.



If you want to know for certain that

features of a page stays the same you can *Validate Selected Text* on parts of your page during a recording. During a recording session use the mouse to highlight a section of the page that you want to confirm. Then click **eValid > Record Mode > Validate > Selected > Text.**

eValid remembers the text you highlighted and if that text has changed *logical position* during playback you'll get an error message. This is a very powerful feature because the script file will cause an error message if at some time in the future your page has changed in any way that invalidates the text.



Lastly, you can select eValid > Record Mode > Validate > All > Images OR eValid > Record Mode > Validate > All > Applets.

When you validate images you make a record of every image currently in the page and record it in such a way that if any images change during playback an error message will result.

When you validate applets you make a record of every applet referenced on the page and record it in such a way that if the applet is not present or changes size an error message will result.

These validation procedures refer to *Element ID's*. These numbers are generated for each *element* of the HTML page (text, images, applets, etc.) when the page is read into the browser. eValid uses these *Element ID's* to refer to the exact portion of the page that you wish to be validated.

12. Recording a BenchMark Test [Top]

A BenchMark Test measures the amount of time a sequence of browser action takes. Briefly, the test starts the timer, browses to a number of pages, and then reads the timer. Because eValid runs from a browser -- just like you do -- the times measures are very realistic.

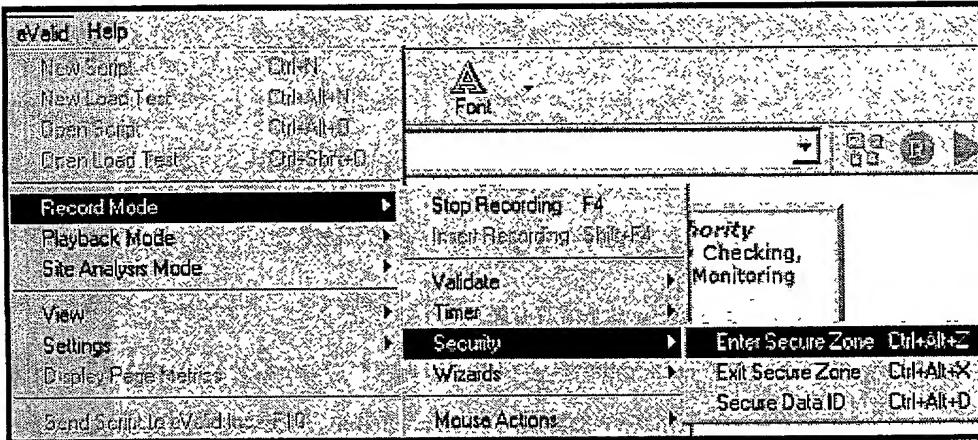
We've put together a special set of "how to" instructions to help you Create a BenchMark Test. [Hint!](#)

13. Recording an E-Commerce Test [Top]

An E-Commerce test tries out an E-Commerce application by going to an E-Commerce site, selecting an object to purchase, making the purchase and taking care of the payment (or, at least, simulating taking care of the payment), and confirming that the order was placed correctly. If you run an E-Commerce test you confirm that your E-Commerce site is working normally, and you detect any errors along the way.

We've put together a special set of "how to" instructions to help you Create an E-Commerce Test. [Find out more](#)

14. Recording a Security Test [Top]



A Security Test tries out a login activity on a WebSite by trying both a legal login (which should PASS) and an illegal login (which should FAIL). Running a Security Test confirms that the essential protections in a login area are working.

To make it possible for eValid to handle a secure transaction reliably you will probably want to record `eValid > Record Mode > Security > Enter Secure Zone` when you enter the secure area and record `eValid > Record Mode > Security > Exit Secure Zone` when you leave the secure area. Turning the secure area processing changes the way the playback is handled so that it is compatible with secure transactions.

We've put together a special set of "how to" instructions to help you Create a Security Test. *Hint!*

15. Recording a SpotCheck Test [Top]

A SpotCheck Test uses the `eValid > Record Mode > Validate > Selected > Text` feature to make sure several parts of one or many pages has not changed. Briefly, a SpotCheck test protects you against unnoticed changes -- either by your own staff or from outside "hackers" -- by baselining a set of pages and key passages in those pages. Running the SpotCheck test will tell you that the pages are OK -- or it detects when there were changes made from the baselined behavior.

We've put together a special set of "how to" instructions to help you Create a SpotCheck Test. *Hint!*

16. User Preferences [Top]

Click To Expand Image Below.



There are many User Preferences that affect how you make your recording, how you save the script files, and how you play back the recording. (`eValid > Settings > Preferences`) *Hint!*

17. Cache Management [Top]

Click To Expand Image Below.



The eValid browser, like its IE Browser counterpart, includes powerful caching capabilities that enhance the performance of the browser during normal operation. However, the behavior of the cache can perturb or distort response timings in complex ways.

To give eValid the greatest flexibility as a test and measurement tool we have built in a detailed Cache Management function that lets you choose between many options in how you want the internal cache handled. (`eValid > Settings > Cache Manager`) *Hint!*

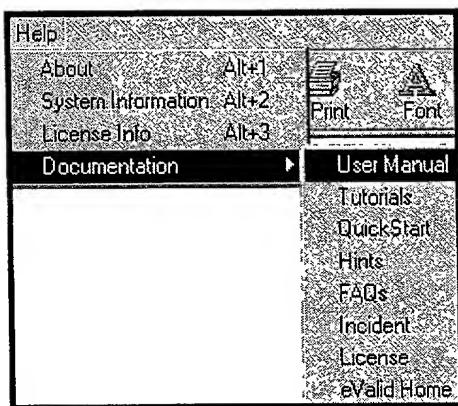
18. Advanced Recording [Top]

In some cases the WebSite you're testing requires just a bit more work than simply recording what you do. *Advanced Recording* is a set of special eValid features that lets you handle Modal Dialogs, certain kinds of Java Applets, windows that require scrolling, etc. There is a complete description of the Advanced Recording Features. (`eValid > Settings > Preferences > Advanced Preferences`) *Hint!*

19. Charts [Top]

There are various charts you can generate from the logfiles that are generated by eValid during a playback session. These are described in a Chart Description Document.

20. Getting Help [Top]



There are many ways to get help with the usage of eValid:

- eValid User's Manual (`Help > Documentation > User Manual`)
- eValid FAQ (`Help > Documentation > FAQs`)
- Various Online Documentation

These tools will help you how to use eValid at its maximum potential.

Click `Help > About` to learn about the version of eValid you are using.

Click `Help > License Info` to learn the details of the eValid license you are using.

Click `Help > Documentation > ...` to get to any of these kinds of information:

- User Manual for the complete User Documentation for eValid.
- Tutorials for the complete User Documentation for eValid.
- QuickStart for the QuickStart page for eValid. *Hint!*
- Hints for Helpful Hints section that describes some common types of eValid tests.
- FAQs to read the FAQs for eValid.
- Incident to go to the Incident Reporting Form for eValid, in case you encounter any problems.
- License to read the license agreement that governs eValid's use.
- eValid Home to go to the eValid Homepage.



eValid AutoDemo Playback (for eValid Ver. 3.0)

Introduction: The eValid *AutoDemo Playback* feature plays back pre-recorded scripts supplied direct from our WebSite. Click on your script choice below and follow the instructions on the next screen.

Important: The scripts that you can play back with this feature are pre-programmed to work **only** with eValid Ver. 3.0. Please download the latest version of eValid if you would like access to this feature. AutoDemo playbacks may not work with eValid installations on certain versions of Windows 95 and 98. We recommend Windows NT/2000 for reliable AutoDemo operation.

[Yahoo! Login Demonstration](#)
[Navigation Demonstration](#)
[Charts Demonstration](#)
[Applet Playback Demonstration](#)

Tutorial Scripts

[Interface Tutorial](#)
[Logs Tutorial](#)
[Link Confirm Tutorial](#)

[Page Tuning Tutorial](#)
[Performance Check Tutorial](#)
[Timer Alarms Tutorial](#)

[Server Loading Tutorial](#)
[Login & Logout Tutorial](#)
[Ecommerce / Email Portal Tutorial](#)

[Applet Recordings Tutorial](#)
[Modal Dialogs Tutorial](#)
[Validating Visual Multimedia Tutorial](#)



eValid Home



eValid -- Training Material

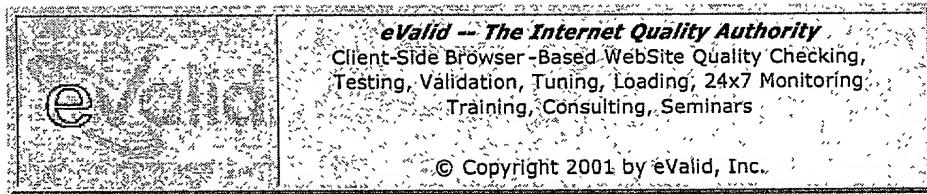
How To Use eValid Training Material This material consists of Slide Presentations that can be viewed in three ways:

1. **Manual Presentation.** Click on the script and you'll see the slide sequence presented to you for manual viewing. The number of ViewGraph frames in each sequence is given.
2. **Script Playback.** Click on this selection, select the entire script, and past it into any eValid playback engine. Then click eValid > Playback Mode > Start Playback to see the script run automatically.
3. **AutoDemo Playback.** Click on this selection and you'll be taken to the correct AutoDEMO page. Then Click on Play Selected Script Now and watch as eValid plays back the script automatically.
4. **PowerPoint Slides.** Click on this selection to retrieve the PowerPoint (PPT) frames used in the other material.

No.	Sequence Name	Description	Manual Presentation	eValid Training Script (Manually Started Playback)	AutoDemo Playback	Download PPT
-----	---------------	-------------	---------------------	--	-------------------	--------------

1	eValid User Interface	Familiarize yourself with the eValid interface.	[9 Frames]	Script 1	AutoPlay	[PPT 1]
2	eValid Log Files	Learn how to understand eValid's logging functions and logging preference options.	[11 Frames]	Script 2	AutoPlay	[PPT 2]
3	Link Confirmation	Learn how to use the eValid Link Wizard to confirm that links on a particular page are valid.	[12 Frames]	Script 3	AutoPlay	[PPT 3]
4	Page Tuning	Examine a page to see which elements take the most time to download, which is useful for optimizing page download times.	[12 Frames]	Script 4	AutoPlay	[PPT 4]
5	Performance Check	Examine a set of pages to evaluate the average download times for pages served from your WebServer	[13 Frames]	Script 5	AutoPlay	[PPT 5]
6	Timer Alarm	Learn how to set an alarm that, at a specified time threshold, will perform an action that can include Email notification.	[9 Frames]	Script 6	AutoPlay	[PPT 6]

7	Server Loading	Create, run, monitor and evaluate an imposed load on your WebServer.	[10 Frames]	Script 7	AutoPlay	[PPT 7]
8	Login & Logout	Learn how to validate your WebSite's authentication process.	[9 Frames]	Script 8	AutoPlay	[PPT 8]
9	E-Commerce	Learn how to simulate user activity on a transaction based Web service. Take advantage of eValid's ability to "maintain state".	[11 Frames]	Script 9	AutoPlay	[PPT 9]
10	Applet Recording	Learn how to use eValid with embedded applications such as Flash and Java.	[7 Frames]	Script 10	AutoPlay	[PPT 10]
11	Modal Dialogs	Learn how to manipulate modal dialogs.	[11 Frames]	Script 11	AutoPlay	[PPT 11]
12	Video	Learn how to validate embedded video.	[6 Frames]	Script 12	AutoPlay	[PPT 12]



Quick Tour of eValid

Introduction

This User Manual illustrates how to use eValid by taking you on a simple tour of all of the facilities in eValid.

GUI Operation

eValid is a full-featured Web Browser that has been "test enabled". eValid adds special testing functionality that permits you to record or create WebSite tests, play them back automatically, and generate tests having certain properties.

eValid is an "execution engine" for a full-featured test activity aimed exercising the main features of a complex WebSite. It should be used in conjunction with a test management system such as eV.Manage, which has the capability to launch individual tests that invoke eValid's playback capability.

NOTEBOOK TEST REPORT

Keyboard Short Cuts

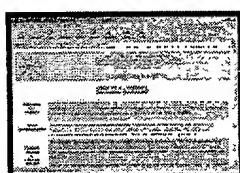
Many of the user functions can be accessed with function keys or other keyboard combinations. There is a Keyboard Short Cut Summary available.

Starting Up eValid



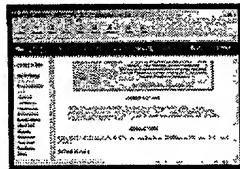
You start up eValid Ver. 3.0 by double clicking on the product icon.

After installation you will see a pair of icons in the eValid installation area. You can drag the eValid icon to your screen as a shortcut.



This is how the screen looks when you start up eValid. The initial screen is the "banner" for the product, and gives you immediate access to the Help System. The Help System is implemented in HTML and includes this document.

eValid Browser Operation



The eValid browser works like your regular browser. It has all the essential operational features of a browser.

The first row of the eValid frame includes a range of pulldowns, most of which have their normal meaning as a WebPage browser.

- **File.**
- **View.**
- **Go.**
- **Favorites.**
- **Tools.**
- **eValid.** evalid menu. Access all of eValid's functions from this menu.
- **Help.** Help menu. Get help for eValid from this menu.

The second row of the eValid frame includes icons and fields as follows:

- **Back.** Go back to the prior page (if any).
- **Forward.** Go forward to the next page (if any).

- **Stop.** Stop the current activity.
- **Refresh.** Redraws the current page.
- **Home.** Go to the specified home page.
- **Search.** Invoke search engines.
- **Print.** Invoke the printer.
- **Font.** Select fonts and choose font size.

The next line is the familiar Web Browser path, which shows the path (URL) of the page you are viewing.:

The title of the page you are viewing is given on the top of the display.

Help Pulldown

The **Help Pulldown** gives you access to eValid facts, the User's Manual, and to FAQ's about eValid.



`Help > About` will give you the basic facts about the eValid build you are using.

`Help > Documentation > User Manual` will link you directly to the current eValid *User Manual*.

`Help > Documentation > FAQs` will link you directly to the current eValid Frequently Asked Questions (FAQs).

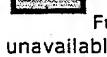


The image at the left shows the result of the `Help > About` option.

eValid Operation Pulldown



Operation of eValid is simple and straightforward. You can make a recording, save it into a file, play it back, or play back some other file that you recorded previously. During recording or playback operations you can view four different "dialog boxes" (see below).



Functions available to you depend on the state of the recording process; if a command is "grayed out" that means it is unavailable at that point. For example, `evalid > Record Mode > Validate > Selected > Text` is available only during a recording operation.

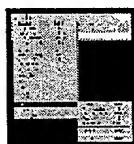
These options control all eValid functions and facilities.

- **Load Script File:** Declare and open the current `script_file`. `eValid > Open Script`.
- **Start Recording:** Start recording into the current `script_file`. `eValid > Record Mode > Start Recording`.
- **Stop Recording:** Stop recording into the current `script_file`. `eValid > Record Mode > Stop Recording`.
- **Start Playback:** Start playback of the recording in the current `script_file`. `eValid > Playback Mode > Start Playback`.
- **Stop Playback:** Stop playback of the recording in the current `script_file`. `eValid > Playback Mode > Stop Playback`.
- **Control Playback:** Single Step, Pause and Resume, Run Multiple, and Run Forever for the current script file. `eValid > Playback Mode > Control Playback`
- **Validate Text:** Add a validation checkpoint to the current script file. You do this by selecting text from the screen so that it is highlighted, and then click on this item. What is saved in the `script_file` is enough information so that, during playback, if the selected text is *NOT* equal to what was recorded then an error message results. Including options for Document, Selected or All. `eValid > Record Mode > Validate > Selected > Text`.
- **Timer:** Invoke the built-in 1 msec. resolution timer.
 - You click on **Reset Timer** to enter a timer reset command in the script file. `eValid > Record Mode > Timer > Reset Timer`.
 - You click on **Read Timer** to enter a timer read command in the script file. `eValid > Record Mode > Timer > Read Timer`.
 - On playback the **Timing Log** will show actual time values the correspond to these requests. `eValid > View >`

- Timing Log**
o You click on **Set Alarm** to trigger an alert in the script file. eValid > Record Mode > Timer > Set Alarm.

- **Wizards:** Run one or more of the powerful eValid test creation wizards. See below. eValid > Record Mode > Wizards > ...
- **View:** choose which files to view as eValid is working. See below. eValid > View > ...
- **Security:** choose to enter or exit secure zone. eValid > Record Mode > Security.
- **Preferences:** Choose certain user-selectable delay preferences. eValid > Settings > Preferences.

eValid Views



This pulldown gives you control over four important files that always accompany eValid operation.

These files are dialogs that are connected to the eValid version you are working with and as a result you can view these files only during the current session. As with any dialog box you can show any or all of them along with the eValid GUI; they will all disappear when you terminate your eValid session.

- **Script File:** This activates an on-screen display of the current script file. eValid > View > Script Window.
- **Messages:** This activates an on-screen display of the current messages file. eValid > View > Message Log. All Messages, Warnings, and Errors appear in this dialog box.
- **Timing Log:** This activates an on-screen display of the current timing file. eValid > View > Timing Log. All outputs from the built in timer appear in this dialog.
- **Events Log:** This activates an on-screen display of the current events output. eValid > View > Event Log. A selection of main events that affect eValid operation during playback, including timing information and Messages, Warning and Errors appear in this dialog. Note that this file may be quite verbose.
- **View All:** For display of files. eValid > View > All Above Logs



The image at the left is typical of these dialog boxes. This one shows a typical script file after creation and prior to replay.

Validate Text Operation

Role of function Example of selection Resulting script File



The image at the left shows a highlighted text that has been selected by the tester and the corresponding recorded script file with the selected text recorded.



The text highlighted is "capture replay system". During playback if this text is not present in the page in the same position logically then an Error is issued. The checking is *independent* of the page size and type font but instead is dependent on the text being in the underlying representation at the same logical location.

This validation step makes the playback tolerant (i.e. accepting of) unimportant changes in the geometry of the rendering from the downloaded page. At the same time the playback is **very** sensitive to changes in content.

- A document by elements, size or last modified date.
- by selected text or images.
- by all Images or applets.

Using the Timer Function



You can edit any script file, whether you recorded it or created it manually or edited it from a recording that you did manually, to invoke the built-in timer capability.

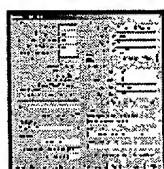


Times are reported in whole seconds with millisecond (msecs) resolution. Timings are accurate overall to 0.1 msec.

You reset the timer with `eValid > Record Mode > Timer > Reset Timer`, as seen in the example script.

You can read the timer at any time without resetting it by using the command `eValid > Record Mode > Timer > Read Timer`, as seen in the example script.

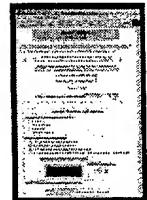
eValid Preferences



Certain user preferences can be adjusted during eValid execution time using the **Preferences** option. The preferences display shown in the picture indicates the delay preferences that you can select.

TOPIC: eValid - Test Scripts

Fully Worked "example1.html"



Here is the input file `example1.html` as it displays in the eValid browser. What this page illustrates is one each of the main types of HTML constructions, links, anchors, user type-in fields, links to images that exist and that don't exist, etc. The idea is, this page has one each of all of the main types of HTML text, and a good sample of kinds of error that eValid can effectively detect.



For the `example1.html` page just described to be representative of real-world WebSite pages that perform useful interactions between the client and the server, being able to simulate an actual transaction is critical. In other words, our `example1.html` and the associated Cgi-Bin files that generate a response from it have a closed-loop response connection where the output is an active function of the submitted input.

Here is the response file that results from the above display after `SUBMIT FORM` is clicked, as it displays on the eValid browser.

What is not shown is the Cgi -Bin script (which in this case happens to be written in PERL) that converts the data sent to it by the FORM processing into the HTML response page seen in this picture.

eValid Wizards

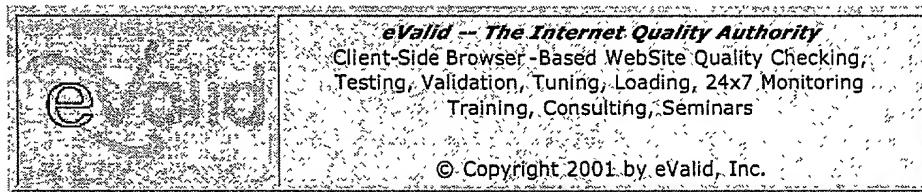
This pulldown gives you access to important test wizards that make your work a lot easier. Each eValid test wizard generates in the current script file a specific kind of test for the page in view at the time that you click the wizard button.

All such tests are delivered into the current `script_file`. Here is a sample picture of how this pulldown appears.

- **Generate Button Test.** This generates a test script that fully exercises all buttons in a page by going to them one by one. `eValid > Record Mode > Wizards > Button Test Wizard`.
- **Generate Form Test.** The *Validate All Text Wizard* generates a test script that fully exercises a FORM section of the current WebPage. `eValid > Record Mode > Wizards > Form Test Wizard`.
- **Record Goto All Links in Page.** This generates a test script that fully exercises all links in a page by going to them one by one. `eValid > Wizard > Link Wizard`.
- **Validate All Text In Page.** The *Validate All Text Wizard* creates a script file (i.e. a synthetic recording) that, when played

back, will confirm that every segment of this page is present (independent of the HTML rendering) in the page, and will issue error reports if **ANY** difference is found.

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Keyboard Short Cuts

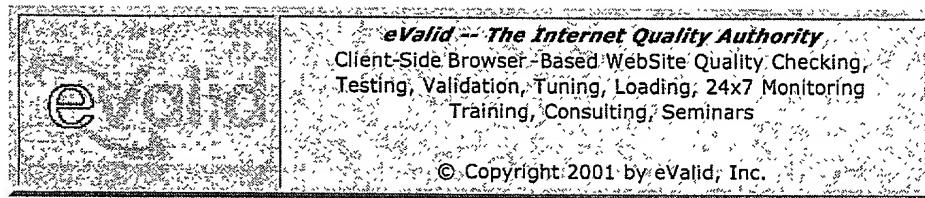
eValid uses function keys and certain keyboard combinations for most of the functions needed during creation of scripts that test WebSites.

eValid KEYBOARD SHORT CUT SUMMARY	
Function Keys	
Key(s)	Description
F1	(Reserved as Windows Help Key)
F2	Show Preferences Dialog (Global)
Ctrl-F2	Show Cache Manager Dialog (Global)
F4	Start Recording / Stop Recording (Global)
F5	(Reserved for Browser Refresh)
F6	Start Playback / Stop Playback (Global)
F7	Single Step Playback (Global)
F8	Pause Resume Playback (Global)
F9	Run Multiple (Global)
F10	Send Script to eValid (Global)
F11	Toggle Absolute Mouse Click Recording
F12	Toggle Absolute MouseOver Recording (Hover Time Exceeded)
Ctrl-F9	Run Forever (Global)
Shift-F4	Insert-Record
Open Files	
Ctrl-Shift-O	Open LoadTest File [LOAD License Only]
Ctrl-Alt-O	Open Script File
Ctrl-N	Manually Create Script
Ctrl-Alt-N	Create LoadTest
Ctrl-S	Save HTML File
Validation Functions	
Ctrl-Shift-Y	Validate Document Byte Size

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Ctrl-Shift-E	Validate Document Elements
Ctrl-Shift-I	Validate Selected Image
Ctrl-Shift-M	Validate Document Last Modified Date
Ctrl-T	Validate Selected Text
Ctrl-Shift-T	Validate Selected Table Cell
Ctrl-Shift-U	Validate Document URL
Ctrl-Q	Validate Screen Rectangle
Ctrl-Y	Synchronize on Text String
Ctrl-Shift-A	Validate All Applets
Ctrl-Shift-D	Validate All Element IDs
Ctrl-Shift-J	Validate All Images
Modal Dialogs	
Ctrl-E	ModalDialog: Enter
Ctrl-B	ModalDialog: Tab
Ctrl-T	ModalDialog: Text
Ctrl-W	ModalDialog: Wait
Ctrl-U	ModalDialog: Up
Ctrl-D	ModalDialog: Down
Ctrl-L	ModalDialog: Left
Ctrl-R	ModalDialog: Right
Timer Functions	
Ctrl-A	Set Alarm
Ctrl-R	Read Timer
Ctrl-Alt-R	Reset Timer
Security	
Ctrl-Alt-X	Exit Secure Zone
Ctrl-Alt-Z	Enter Secure Zone
Ctrl-Alt-D	Secure Data Id
Wizards	
Ctrl-Shift-B	Button Test Wizard
Ctrl-Shift-F	FormTest Wizard
Ctrl-Shift-L	Link Test Wizard
View (Dialog Boxes)	
Ctrl-Alt-A	View All Logs
Ctrl-Alt-E	View Event Log
Ctrl-Alt-G	View Graphs HTML Page
Ctrl-Alt-L	View Load Test Log
Ctrl-Alt-M	View Message Log

Ctrl-Alt-P	View Performance Log
Ctrl-Alt-S	View Script File
Ctrl-Alt-T	View Timing Log
Preferences Dialog	
F2, F2	Opens Advanced Preferences Dialog
Ctrl-F2	Opens Cache Manager
Tools Menu	
Alt-M	Default Mail Program
Alt-I	Internet Options
Alt-S	View Source
Ctrl-F	Find
Script Dialog	
Ctrl-S	Save Edits
Ctrl-Alt-S	Save As
Ctrl-N	New
Ctrl-Alt-O	Open evs.file
Ctrl-Shift-O	Open evl.file
Ctrl-E	Edit
Ctrl-L	Line Numbers
X	Hide Window



Version 3.0 GUI Map

All operations in eValid are controlled through the pulldown menus. The table below shows the complete Version 3.0 GUI Map.

```
eValid Main Toolbar: eValid
    New Script
    New Load Test
    Open Script
    Open Load Test
    -----
    Record Mode
        Start Recording (Stop Recording)
        Insert Recording
        -----
        Validate
            Document
                URL
                Elements
                Byte Size
                Last Modified Date
                -----
                All Document Properties
            Selected
                Text
                Image
                Table Cell
            All
                Images
                Applets
                Element IDs
            & Synchronize
                Screen Rectangle
                Text String
            Clipboard Text
        Timer
            Read Timer
            Reset Timer
            Set Alarm
        Security
            Enter Secure Zone
            Exit Secure Zone
            Secure Data ID
        Wizards
            Link Test Wizard
            Form Test Wizard
            Button Test Wizard
        -----
        Advanced Recording
            Absolute MouseClicks
            Absolute MouseOvers
            Application Mode
    Playback Mode
        Start Playback (Stop Playback)
        Control Playback
            Single Step
            Pause | Resume
            Run Multiple
            Run Forever
        -----
        Site Analysis Mode
            Start Analysis
            Site Analysis Preferences
        -----
        View
            Script Window
            -----
            Event Log
            Performance Log
            Message/Error Log
            Timing Log
            All Above Logs
            -----
            LoadTest Log
            -----
            Log Graphs
        Settings
            Record/Play Preferences
            Site Analysis Preferences
            Cache Manager
            -----
            Disable Playback Logging
        Display Page Metrics
        -----
        Send Script to eValid Inc.
    -----
eValid Main Toolbar: Help
    About
```

System Information
License Info
Documentation
 User Manual
 Tutorials
 QuickStart
 Hints
 FAQs
 Incident
 License
 eValid Home

eValid Script File: File
 New
 Open .evs
 Open .evl
 Save
 Save As
 Revert to Saved

 Edit
 Open Text Editor
 Show Line Numbers

 Encode Input Text

 Hide Window
 Close Script

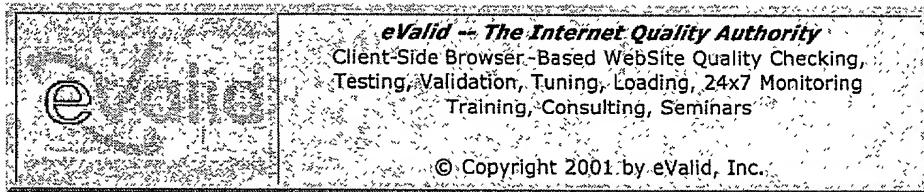
eValid Script File: Insert
 ModalDialog Commands
 ModalDialogEnter
 ModalDialogTab
 ModalDialogText
 ModalDialogWait
 ModalDialogUp
 ModalDialogDown
 ModalDialogLeft
 ModalDialogRight
 Extrinsic Commands
 AbsTextEntry
 BreakPoint
 CallScript
 Delay
 DeleteCache
 DynamicLinkCheck
 DynamicLinkCheckX
 ExitAtEnd
 ExitNow
 GoScript
 Lock
 MatchNotString
 MatchString
 MessageBox
 MessageWindow
 NewWindow
 Note
 OnAlarmGoScript
 OnErrorGoScript
 PlayValue
 Reposition
 Resize
 Serve
 SystemCall
 Unlock
 Clipboard Commands
 Cut
 Copy
 Paste

Include Comments

eValid Log: Options
 Open Log
 Track Log Name

 View Spreadsheet
 View Graph (single)
 View Graph (multiple)
 View HTML Table
 View in Text Editor

 Hide Window



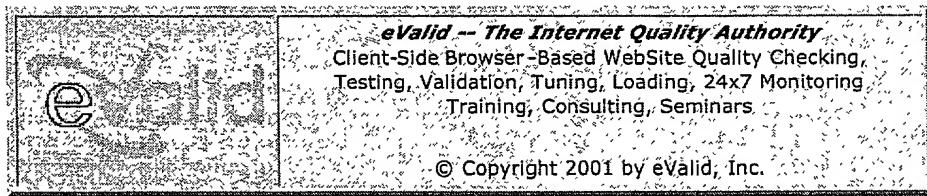
Message Summary

eValid writes messages to the Message/Error log based on what happens in the playback. This is an explanation of those messages and their meaning.

In all cases the messages in each class are arranged in increasing order of severity. That is, the worst types of message tend to be at the bottom.

eValid MESSAGE SUMMARY		
Group	Message ID	Explanation
OK Message Group Everything is OK. Playback will continue normally.	OK	Everything is OK.
	MESSAGE	Something occurred during playback (e.g. re-direction) that the user may be interested in.
WARNING Message Group Something is wrong. Playback should continue normally.	ALERT	Something erroneous occurred (e.g. could not access byte count of document). Not something the user can fix. Playback will continue normally.
	WARNING	Something is broken, but playback can continue as normal. Can be fixed.
	ALARM	OvertimeAlarm was set and went off, i.e. the time limit was exceeded. The user-specified text field is recorded into the message/error log.
	TIMEOUT	Page did not load within the specified download time. Playback will fail until next GotoLink or GotoLinkSubmit.
	ERROR	Something is broken and future playbacks are likely to fail, but can be fixed.
	FAIL	Something went seriously wrong. Usually this is a browser or system error. Cannot be fixed. Playback is likely to fail.

TEST REPORT - 100% TESTED - 100% PASSED



eValid -- View Script, Test Logs, LoadTest Logs

Summary

eValid results from playbacks are placed in various files which can be viewed direct from the eValid GUI and converted into a variety of formats.

General

All eValid script files, log files, and LoadTest logs are viewable from one of the pull down sequences:

```
eValid > View > Script Window  
eValid > View > Event Log  
eValid > View > Performance Log  
eValid > View > Message/Error Log  
eValid > View > Timing Log  
eValid > View > LoadTest Log
```

Log File Contents

As eValid plays back a script it writes certain information about what it is doing to four different log files: the Event Log, the Performance Log, the Timing Log and the Message/Error Log.

As an eValid user you have several options in processing these files. Every file can be purged before playback, or can be appended to after each playback (if you have multiple playbacks).

Here's a summary of the differences in these log files:

- Event Log. This has a single time-stamped line for every event that happens during playback. At the end of the file it has a Download Summary that gives statistics about the download details from the playback. The other three logs (see below) are subsets of the event log. All four log files have the same Download Summary at the end.
- Performance Log. This log contains all download timings and the "Command Completed" messages. It contains no messages from any Validate, Timer/Alarm, Wait, or Absolute Event commands which are executed in the script playback.
- Message/Error Log. This log contains ONLY those lines of the Event Log that do NOT say "OK" as a result status. This log file is a good place to look for any error messages your playback generated.
- Timing Log. This log contains outputs of the Timer commands, plus the statistical summary of the downloaded page.

Note: LoadTest runs write results in a slightly different way, so this explanation does not apply to LoadTest runs.

View Script File

The script file contains the current script being created by eValid or the script that eValid is playing back.

```

#AUTOPLAY=2
#(c) Copyright 2001 by eValid, Inc.
# Recording made on: Microsoft Windows 2000
# Recording started at: <2001/09/11 11:28:33>
#
ProjectID "Project"
GroupID "Group"
TestID "script"
LogID "AUTO"
#
InitLink "http://www.microsoft.com/"
#
# Recording stopped at: <2001/09/11 11:28:38>

```

TOP SECRET//NOFORN



Manually create a new script file using the pre-formatted template.



Open a regular playback script (*.evs).



Open a LoadTest script (*.evl).



Save the script using a new name.



Save (overwrite) the script using the current name.



Revert to the saved script (disregard all edits).



Edit the existing script [or create one from scratch].



Open script in the user defined Text Editor.



Toggle line numbers ON/OFF.



Close the script file, but not the window.



Toggles encryption/decryption of input data fields.

Double click on any script keyword and eValid will take you to the complete explanation for this keyword in the User Manual.

View Test Logs, LoadTest Log

All four of the log files have the same format. The Event Log is the complete record of a playback; the other three logs are subsets of the Event Log. Access to information is the same for all four of these logs. Here is a sample:

A-45

Event Log - [Instaload-E.log]

Options

Log

Open

Save

Print

Exit

#Starting Playback: 14:04:49 Pacific Daylight Time 11-September-2001 [...script.evs]
2001/09/11 14:04:49 1 I -11 Project Group InstaloadOK 10 10 Starting
2001/09/11 14:04:50 2 I -11 Project Group InstaloadOK 621 611 Download
2001/09/11 14:04:50 3 I -11 Project Group InstaloadOK 1272 651 Download
2001/09/11 14:04:51 4 I -11 Project Group InstaloadOK 1993 721 Download
2001/09/11 14:04:51 5 I -11 Project Group InstaloadOK 2123 130 Download
2001/09/11 14:04:51 6 I -11 Project Group InstaloadOK 2224 101 Download
2001/09/11 14:04:52 7 I -11 Project Group InstaloadOK 2494 270 Download
2001/09/11 14:04:52 8 I -11 Project Group InstaloadOK 2624 130 Download
2001/09/11 14:04:52 9 I -11 Project Group InstaloadOK 3235 611 Download
2001/09/11 14:04:53 10 I -11 Project Group InstaloadOK 3776 541 Download

log:C:\Program Files\Software

line 72



Open an existing log file.



Updates the current Record/Play Preferences to this filename.



Convert the log data into a spreadsheet.



Show a graphical chart for the data pertaining to the last test in the log.



Show a graphical chart for all data in the log.



This button converts the log file data into an HTML table.



This button views the log data in the defined text editor.

A+V



Working Directory and eValid Files

Windows Directory Structure

To use certain features of eValid, such as Load Testing, files must be referenced from the script and successfully found within the computer's directory structure. The directory structure is used to accurately pinpoint files that are located on the computer.

Files can be found by typing in the complete directory structure. For example, if one wanted to find an eValid script (named script.evs) in the default directory, the file's location would be:

```
C:\Program Files\Software Research\eValid\Program\Project\Group\script.evs
```

You can reference files from within eValid by typing the full directory, however this can create lengthy lines, not to mention increases the amount of time to write the script.

eValid: Working Directory

To ease the aforementioned directory 'woes', eValid has provided a *Working Directory* where you can save your scripts and not have to reference the full directory structure to use them.

Click `eValid > Settings > Preferences` to view the current settings for eValid's *Working Directory*. In the Project section on the top right of the Preferences window, there are four text boxes:

- Working Directory
- Project Name
- Test Group
- Test Name

The *Working Directory* text box sets the current working directory.

The *Project Name* and *Test Group* text boxes name folders under the working directory where the files will be stored in the directory order *Project Name\Test Group*.

Test Name is not used for file location. Rather, it is used as a reference to the contents of the script file; it can be used to help label and then identify scripts.

Working Directory Example

If you create a load test that does not utilize absolute paths, your script may not run if the eValid script file is not in the working directory. For example, your *Working Directory*, *Project Name*, and *Test Group* preference options set your working directory to `C:\Program Files\My Scripts\My Project\My Group\`, but your script file is located in `C:\Program Files\Software Research\eValid\Program\Project\Group\`. If you write your load test script line as:

```
_eValid "script.evs" "" 5 "" "-pm 1.0"
```

eValid will not be able to identify the location of the script. It believes the the script resides in `C:\Program Files\My Scripts\My Project\My Group\script.evs` When it is actually in `c:\Program Files\Software Research\eValid\Program\Project\Group\script.evs`.

There are two ways to alleviate this problem.

- Change the working directory.

- Use absolute paths.

Changing the Working Directory:

To change the working directory, click `evalid > Settings > Preferences`. Change the values under `Working Directory`, `Project Name`, and `Test Group` to reflect the directory where the script file is located.

Using Absolute Paths:

You can also directly type the absolute path into the load test script. Using the example from above, the script would change to:

```
_evalid "C:\Program Files\Software  
Research\eValid\Program\Project\Group\script.evs" "" 5 "" "-pm 1.0"
```

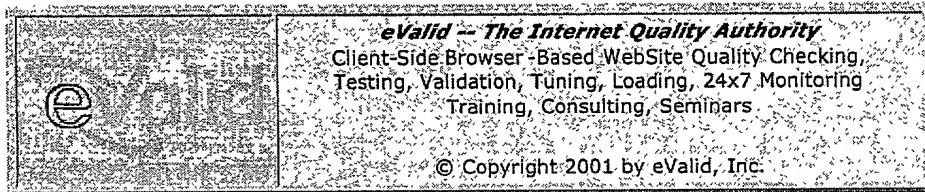
Advantages and Disadvantages

There are some advantages and disadvantages to using absolute paths and working directory paths. Consider the following:

- Absolute paths will work fine -- as long as you don't plan on moving your files to different locations. You would therefore have to change each line to reflect the *new* absolute path.
- Working directory paths limit the location of all scripts to one directory. If you wish to use scripts from other directories, you would have to use the absolute path to reference them.
- Working directory paths enable you to skip writing out a lengthy absolute path to a file, and makes the script easier to understand.
- Absolute paths do not force you to reset the working directory in the `evalid > Settings > Preferences` menu each time you change where you reference your scripts.

Lessons Learned

eValid uses a *Working Directory* to simplify calling other files within eValid scripts.



Preferences

eValid has a number of user-settable preferences, including a powerful Cache Management option. User Preferences, Cache Management and Advanced Preferences are reached and set from the eValid menu using the following pulldown sequences.

```
eValid > Settings > Preferences
eValid > Settings > Cache Management
eValid > Settings > Preferences > Advanced Preferences
```

eValid Preferences

Playback	Record	
<input type="text" value="0.1"/> Delay Multiplier <input type="text" value="5000"/> Wait Ceiling (msec) <input type="text" value="60000"/> Max Download Time (msec) <input type="text" value="1000"/> Form Fill Delay (msec) <input type="text" value="1"/> Multiple Playbacks in value <input type="checkbox"/> Simulate Modem Kbs: 56 <input type="checkbox"/> Audible Alerts  <input type="checkbox"/> Repair HTML on Error <input type="checkbox"/> Playback Status Notification	<input type="checkbox"/> Include Default Form Elements <input checked="" type="checkbox"/> Real-Time Recording <input checked="" type="checkbox"/> Prompt for Script File Name <input checked="" type="checkbox"/> Auto-view Script File <input type="text" value="Prompt Each Time"/> Record	
Load Testing	Project	
<input type="text" value="LoadTest-L.log"/> LoadTest Log <input checked="" type="checkbox"/> Display HTML Load Test Monitor <input type="text" value="10"/> Load Test Timeout (minutes)	<input type="text" value="C:\Program Files\Software R"/> Working Dir <input type="text" value="Project"/> Project Name <input type="text" value="Group"/> Test Group <input type="text" value="Test"/> Test Name <input type="checkbox"/> Auto-name Log File	
General	Log Management	
<input type="text" value="Standard eValid Launch Page"/> Start Page (Enter new URL or select) <input type="text" value="C:\Program Files\Outlook Express\MSIMN.E"/> Mail Program <input type="text" value="C:\Program Files\Microsoft Office\Office\EX"/> Spreadsheet Program <input type="text" value="C:\Windows\NOTEPAD.EXE"/> Text Editor <input checked="" type="checkbox"/> View eValid Help in New Windows <input type="checkbox"/> Save Main Frame Position <input type="checkbox"/> Save Child Window Positions <input type="checkbox"/> Silent Message Pop Ups	<input checked="" type="checkbox"/> Event Log <input checked="" type="checkbox"/> Performance Log <input checked="" type="checkbox"/> Timing Log <input checked="" type="checkbox"/> Message Log <input checked="" type="checkbox"/> Event Log <input checked="" type="checkbox"/> Performance Log <input checked="" type="checkbox"/> Timing Log <input checked="" type="checkbox"/> Message Log <input type="radio"/> Simple <input checked="" type="radio"/> Standard <input type="radio"/> Detailed <input type="checkbox"/> Append to Logs <input type="checkbox"/> Purge on Playback <input checked="" type="checkbox"/> Auto-view Event Log	
Advanced	Cache	Profiles
<input type="button" value="Cancel"/>	<input type="button" value="OK (Save)"/>	<input type="button" value="OK"/>

eValid PREFERENCES			
Preference Group	Preference Name	Default Value	Detailed Explanation
			Wait Times, if any are encountered in the playback

Playback Group	Delay Multiplier	1.0	process, are multiplied by this number. The wait time never exceeds the Wait Time Ceiling. 1.0 means "real time".
	Wait Ceiling msec	10000	The maximum time (in msec), after multiplying Wait Times by the Delay Multiplier, to wait. This ceiling will prevent playback lockup.
	Max Download Time (msec)	60000	The amount of time (in msec) to wait, after which an attempt to download is declared an Error.
	Form Fill Delay (msec)	1000	How long (in msec) to wait between entering items into a FORM.
	Multiple Playbacks 'n' Value	1	How many times to play back on Run Multiple.
	Simulate Modem	off	Whether to simulate playback with a constant-speed modem.
	Kbps	56	The rate at which to simulate playback of a constant-speed modem.
	Auto-View Event Log	ON	Show Event Log automatically on playback.
	Append to Logs	OFF	When on append data to all log files.
	Audible Alerts	OFF	Signal audibly to the user on Errors.
Record Group	Repair HTML on ERROR	OFF	Playback stops when an error is found. You have the option to continue or to repair the page based on the error messages received.
	Playback Status Notification	OFF	Use special pages to indicate OK, Warning, or Error on playback.
	Log Messages	standard	How much detail to place in the generated Log Files.
	Multiple Windows	Prompt Each Time	Specifies how to handle pages that open new windows. The choices are: <ul style="list-style-type: none"> • Prompt Each Time • New eValid in Record Mode • New IE Window in Browse-only Mode • Suppress New Windows
	Real-Time Recording	ON	Includes all recorded wait intervals.
Load Testing Group	Auto-View Script File	OFF	Present the script file at the end of a recording.
	Prompt for Script File Name	OFF	Prompt for the name of the script file before starting a recording.
	LoadTest Log	LoadTest - L.log	The name of the file where LoadTest data is written.
	HTML Monitor	ON	Enable the LoadTest Monitor in HTML format.
Project Group	Refresh (msec)	5000	Refresh interval for the HTML LoadTest monitor.
	Timeout (minutes)	10	Maximum time for a LoadTest. Once this threshold is reached, eValid will kill all LoadTest threads.
	Working Directory	\Program Files\Software Research\isValid\	The working directory where eValid stores all files.
Project Group	Project Name	Project	Name of current test project, which typically is composed of one or more groups of tests or groups. The test hierarchy is managed by SMARTS.
	Test Group	Group	Name of current test group, which includes other groups or individual tests. The test hierarchy is managed by SMARTS.